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Elementary Principal and Special Education Teacher Perspectives of Instructional Leadership for Special Education

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By

JENNIFER NORTON

A dissertation submitted in partial fulfillment

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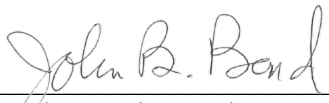
Approved by 

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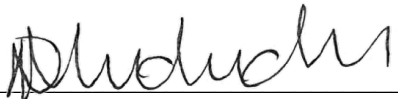

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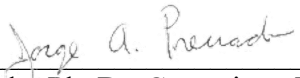

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Abstract

Focus on instructional leadership for school principals continues to be prominent in educational research and reform, as accountability for student achievement increases. The relationship between instructional leadership and special education needs more representation in research and literature. In this study, a review of relevant historical and current research regarding principal instructional leadership is presented with a contemporary conceptual framework of instructional leadership. Using the Principal Instructional Management Rating Scale (PIMRS), perceptions of principal engagement in instructional leadership behaviors were examined through the viewpoints of elementary principals and special education teachers in the State of Washington. Data generated by the PIMRS were used to identify patterns of principal instructional leadership. Using multivariate analyses of variance, differences were detected between principal and special education teacher ratings of instructional leadership behaviors. These findings were consistent with precedential research of instructional leadership comparing perspectives of principals and all teachers. Federal and State law requires schools to implement tiered systems of support. Results from factorial analyses indicated a significant effect for group role on leadership domains. Significant effects were found for group role and implementation of tiered systems of support, when measured across discrete principal leadership functions. No interactions effects were found.

Keywords: instructional leadership, principal, special education, PIMRS

Chapter One: Introduction

The past three decades of educational reform in the United States have resulted in increased school and district accountability in raising student academic expectations and closing achievement gaps. The No Child Left Behind Act (NCLB) of 2001, a reauthorization of the Elementary and Secondary Act of 1965, and its current iteration, the Every Student Succeeds Act (ESSA) of 2015, promote improved education for *all* students as measured by annual testing and made transparent through the public reporting of outcomes. More than the preceding laws, ESSA represents a substantial increase in attention to school leadership, as evidenced by its provisions for states and districts to recruit, hire, and prepare highly capable school leaders. A widely referenced finding in educational research is the relationship between teacher quality and student achievement (Borman & Kimball, 2005; Darling-Hammond, 2000; Hanushek, 1992; Rowan et al., 2002; Sanders & Rivers, 1996). Additionally, over a decade of research indicates an empirical link between principal leadership and student achievement (Wallace Foundation, 2011). Principals have an important, if indirect, effect on student learning. In their report on school leadership, Leithwood et al., (2004) coined the often-cited statement "The principal is second only to teachers in terms of impact on student learning" (p. 5).

With the spotlight on effective classroom instruction, the role of the principal has undergone a metamorphosis from organizational manager to instructional leader. The operational and administrative responsibilities over personnel, facilities, budget and family/community relations have diminished little. Rather, the principal's role has expanded to include instructional leadership. Fullan (2016) described the late 1980s as watershed years for principals, when the period of instructional leadership began. Over

the past 30 years, principal leadership has cycled through broad interpretations where principals created a transforming environment, providing the sense of moral urgency, inspiration, and energy needed to rally teachers towards excellence, high expectations and quality of performance (Bass, 1985). Benefits from this leadership model were a sense of shared mission, increased job satisfaction among teachers and commitment (Humphrey, 2012); however, this did not equate to improved student outcomes. In their meta-analysis of transformational leadership, Robinson et al. (2008) found a negligible effect size (.11) on student achievement. What was lacking was specificity and clarity on how to improve specific student outcomes.

Narrower interpretations of instructional leadership resulted in expectations for principals to become micromanagers of curricular implementation, authorities in instruction across all disciplines and experts of data collection and analysis. This translated into inordinate amounts of time in classrooms observing and providing instructional feedback to teachers, often in areas in which they were under-prepared or lacked training (Goldring et al., 2015). Teacher evaluations were, and still are, comprised of multiple principal observations to ensure use of student data, to evaluate instructional effectiveness, and to verify student growth (Elfers & Plecki, 2017). Principals reported that the process required four to six hours for each evaluation (DuFour & Mattos, 2013). Some considered this level of instructional management unrealistic and unsustainable for a principal, as evidenced by a trend in principal turnover (Goldring & Taie, 2014).

There is no agreed-upon definition of instructional leadership and interpretations and implementation strategies; however, the broad focus is on improving classroom instruction to increase student achievement (Blasé & Blasé, 1999; Spillane et al., 2001; Wahlstrom & Louis, 2008). Several salient dimensions of instructional leadership

behaviors are consistent in research. They include: (a) pursuing an instructional vision; (b) cultivating norms of trust, collaboration, and academic press; (c) supporting teachers; and (d) monitoring instruction and innovation (Bays & Crockett, 2007; Blasé & Blasé, 2002; Hallinger, 2005). In a meta-analysis of findings from 27 published studies of the relationship between leadership and student outcomes, effect sizes for instructional leadership were three to four times larger than those found in transformational leadership (Robinson et al., 2008). Compared to transformational leadership which focuses on relationships, instructional leadership in effect gets to the business of teaching and learning.

A challenge to principal instructional leadership is the additional responsibilities assumed in the administration and supervision of special education programs. With the advancement of special education for students with disabilities since the 1970s, compliance with federal laws and effective programming have become one of the major challenges facing school leaders. The Individuals with Disabilities Education Act (IDEA) introduced in 1997 ensured free and appropriate education for all students with disabilities. Further revisions to the law emphasized that students with disabilities should be educated in least restrictive environments, meaning with general education peers and in general education settings as much as is appropriate to their individual needs. The No Child Left Behind Act of 2001 further challenged educators to provide rigorous standards for students with disabilities, as with their typical peers, that would be measured through progress monitoring and assessment. With higher demands facing special education, it is not surprising that it is one of the two most highly litigated areas in education today, with federal cases having doubled between 1980 and 2008 (Zerkel & Gischlar, 2008). Additionally, there is an ongoing demand for special education staff, as the need for new

staff consistently outstrips the supply of new graduates from teacher preparation programs (U.S. Department of Education, 2020). Perhaps most worrisome is that achievement outcomes for students with disabilities have not shown the expected improvement under the current public policies with gaps between general education students and students with disabilities averaging 45 scaled score points in elementary, middle school, and high school reading and math. These data provide evidence that since 2006, little to no improvement has been made in closing the achievement gap for students with disabilities (National Center for Educational Statistics, 2015). Given the programmatic, instructional, legal and staffing demands of special education, and the ongoing need to improve instruction for students with disabilities, it is an area in which principals need specific training to be effective instructional leaders in their buildings.

The relationship between principal instructional leadership and special education has not received much attention (DiPaola & Walther-Thomas, 2003) in research and in principal preparation programs. While the relationship between principal instructional leadership and student achievement is supported in research literature, it generally does not reference the needs of students with disabilities.

In their research of instructional leadership for special education in elementary schools, Bays and Crockett (2007) found school principals have limited interactions with special education teachers about improving teaching and learning. They found a lack of systematic monitoring of instruction, evidence-based instruction, and accountability measures in the instruction of students with disabilities. They argued that principal instructional leadership needs to similarly include the vision, focused collaboration, meaningful teacher support, and monitoring of instruction to support the achievement of students receiving special education services as with general education.

Problem

The tension between general education and special education reform initiatives and laws makes instructional leadership a daunting task. One central role of the principal is providing instructional leadership to promote the meaningful education of *all* students. IDEA, however, requires specific provisions for the meaningful education of *each* student with a disability. Principals are charged with ensuring that the individualization of instruction to promote academic growth of students with disabilities occurs in the least restrictive environment, while they access the general education curriculum and participate in assessments, like their general education peers. Regardless of the categorization of student, public policy calls for instructional leadership to become a primary responsibility for principals. Does instructional leadership need to look different for special education programs and services? Do principals need to do anything differently to create conditions for instructional change and improvement for teachers of students with disabilities? At this time, there is little research that indicates the instructional leadership practices that impact students with disabilities and their teachers.

Purpose and Significance of the Study

The purpose of this study is threefold: (a) to examine the theoretical constructs and empirical research informing instructional leadership and the delivery of special education services, (b) to explore the perceptions of elementary principals and special education teachers of principal instructional leadership characteristics/behaviors important for special education programs and services, and (c) to provide considerations for further study and recommendations for principal professional development in the area of special education.

Exploring instructional leadership through the lenses of principals and special educators may bring to light conditions necessary for improving instruction and outcomes for students with disabilities.

Research Questions

Two broad questions underlie this study. First, how do principals as instructional leaders promote student learning improvement for those with disabilities? Second, what instructional leadership behaviors are deemed important for leading special education programs and services.

Question 1. What are elementary principal perceptions of their instructional leadership practices for special education programs and services?

Question 2. What are elementary special education teacher perceptions of principal instructional leadership practices for special education programs and services?

Question 3. Is there a significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services?

H_0: There is no statistically significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services.

H_1: There is a statistically significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services.

Question 4. Do perceptions of principal instructional leadership vary with the implementation of Response to Intervention (RtI) or Multi-Tiered Systems of Support (MTSS) in their schools?

H_0: There is no statistically significant difference in perceptions of principal instructional leadership practices based on implementation of RtI or MTSS.

H_1: There is a statistically significant difference in perceptions of principal instructional leadership practices based on implementation of RtI or MTSS.

Question 5. Is there an interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership?

H_0: There is no statistically significant interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership.

H_1: There is a statistically significant interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership.

Terms and Definitions

Every Student Succeeds Act: a federal law passed in December 2015 that governs K–12 public education policy. The law replaced the No Child Left Behind Act (NCLB) of 2001 and modified but did not eliminate provisions relating to the periodic standardized tests given to students.

Free and Appropriate Public Education (FAPE): as defined in IDEA, FAPE is comprised of special education and related services that: (a) have been provided at public expense, under public supervision and direction, and without charge; (b) meet the standards of the State educational agency; (c) include an appropriate preschool, elementary school, or secondary school education in the State involved; and (d) are provided in conformity with the individualized education program [20 U.S.C. 1401(9)].

Individuals with Disabilities Act (IDEA): Originally titled the Education for All Handicapped Children Act (EAHCA), IDEA is a federal law enacted in 1990 and reauthorized in 1997 and 2004. It is designed to protect the rights of students with disabilities by ensuring that everyone receives a *free appropriate public education* (FAPE), regardless of ability (Individuals with Disabilities Education Act Amendments of 1997, Pub L. No. 105-17, 37 Stat. 111).

Individual Education Program: a written statement of specially designed instruction to meet the unique needs of children with disabilities. The IEP includes present levels of performance, annual measurable goals, accommodations and modification appropriate for attaining the goals, evaluation of goals, provisions for district and state assessments, and the provision of reporting progress to parents or guardians [20 U.S.C.A 1414 (d)].

Instructional Leadership: demonstration of strong school leadership, especially in the areas of curriculum and instruction; direct responsibility for improving teaching and learning; principal actions to support growth in student and teacher learning.

Least Restrictive Environment: IDEA states: "...to the maximum extent appropriate, children with disabilities including children in public or private institutions or care facilities, are educated with children who are *non*disabled…" (Individuals With Disabilities Education Act Amendments of 1997, Pub L. No. 105-17, 37 Stat. 111). Stated simply, the LRE is the environment most like that of typical children in which the child with a disability can succeed academically.

Multi-Tiered System of Supports (MTSS): a general education framework of leveled support to all students, and in particular those who show early signs of academic and/or behavioral struggle. Data-driven problem-solving is employed to determine

differentiated instruction and research-based academic and behavioral practices to promote student growth (Hoover et al., 2016).

No Child Left Behind of 2001: a federal law enacted in 2002 reauthorizing a range of federal funding programs around the central thesis increasing the performance of public schools, requiring accountability of states and local school districts through annual student achievement testing, and promoting parental choice (Alexander & Alexander, 2012).

Response to Intervention (RtI): a practice used with all students, including students in general education classes, students who are considered at-risk for school failure, and students with suspected disabilities. The goal of RtI is to prevent academic failure for all students through high-quality instruction and tiered evidence-based interventions (Fuchs & Vaughn, 2012).

Chapter Two: Review of Literature

Introduction

A limited body of research exists regarding principals as instructional leaders for special education programs and services. Much of the literature on effective schools that relates to instructional leadership identifies the principal as the key to improving student achievement. Less attention in the research literature is given to the role and function of the principal's instructional leadership as it pertains to improving instruction and outcomes for students with disabilities.

The history and complexity of the principal's role in the leadership of special education will unfold through four sections in this literature review. First the development of leadership theories will be explored. Second, educational reform movements that have influenced a more recent instructional leadership framework will be explored. This will include a brief history of special education in the United States. Third, models of effective instructional leadership and principal behaviors leading to instructional improvement are identified. Finally, empirical research specific to the instructional leadership of principals for students with disabilities is included.

It is expected that obstacles to principal instructional leadership in general and specific to leadership for special education programs will emerge through this review of literature. Other relevant areas of research, therefore, may include principal preparation programs and principal professional development.

Search Process

The review of literature for this study progressed through several purposeful steps. The first step involved the use of electronic databases and search engines such as Academic Search Complete, ERIC via EBSCOHost, Google Scholar, JSTOR and

ProQuest Dissertations and Theses and Research Library Complete. Key words and terms used to generate a list of studies included “leadership theory,” “scientific management theory,” “trait theory,” “contingency theory,” “transformational theory,” “instructional leadership,” “instructional leadership and special education,” “principal leadership,” “principal leadership and special education,” “instructional leadership and survey,” “Principal Instructional Management Rating Scale.” The next step involved perusing references in relevant journal articles, dissertations, and books. This search process resulted in excess of 150 journal articles, dissertations, books, book chapters, and government publications.

Leadership Theory

The history of leadership theories spans over 100 years and many classifications have been developed to define leadership. Each theory of leadership resonates with the historical, economic, social and political context of the time. Consistent studies on leadership have produced theories involving scientific management, traits, contingency (or situational), transactional, and, more recently, transformational leadership theories. Related to educational organizations, transformational leadership and instructional leadership theories have been most studied.

The Great Man Theory

The Great Man theory is traced to the 19th century when there was fascination with the lives and achievements of great men (and some women) of history. Influential leaders such as Moses, Napoleon Bonaparte, Mahatma Gandhi, Winston Churchill, Martin Luther King and others have been – and still are studied to explain the difference between people who are leaders and those who are non-leaders. A fundamental notion of the Great Man theory is that leaders possess certain inherent traits that make them natural

leaders and separate them from the common "man" (Harrison, 2018). Traits often associated with the born leader are superior intelligence, divine inspiration, and extreme courage (Carlyle, 1908), although it was left to question whether these traits were "born" or the product of long legacies of leadership (e.g., family lines of military, political and business/industrial influence). A limitation to the theory emerged in the early 20th century mostly showing a lack of empirical research to support its claims (Judge et al., 2004). Researchers recognized that while many great leaders are born, others become great through development in knowledge, skills, experience, and facing consistent struggle (Judge & Piccolo, 2004; Khan & Nawaz, 2016). In other words, leadership can be learned. Further, when leadership was studied in the services industry, leaders were sometimes described as neither possessing innate nor learned traits of leadership, and yet their influence on the organization was apparent (Khan & Nawaz, 2016). Despite its lack of scientific robustness, the Great Man theory still holds appeal in the world of business where individuals have pioneered and led companies to great success (e.g., Bill Gates, Steve Jobs).

Scientific Management

In the early 20th century, the agricultural-based economy shifted to an industrial base, and new mass-manufacturing methods and technological advances aimed to increase efficiency and productivity (Carson & Bonk, 2000). Researchers, particularly in industrial and organizational psychology, began to examine elements of effective leadership that impacted productivity (Rogelberg, 2007). Frederick Taylor (1911) pioneered the field of scientific management by analyzing the functions of workers and devising new, more efficient ways for them to complete their jobs. He claimed that skills developed through a series of step-by-step operations could be mastered by anyone. Thus,

a quality worker was one who mastered a skill and implemented it with efficiency to increase the company's productivity. A capable industrial leader, therefore, was not as dependent on being born an extraordinary man as on identifying and improving elements of productivity which often were mechanical and efficiency-driven (Taylor, 1911). His empirical research included studying elements of human performance, such as time and motion and employee fatigue, which fueled his belief that human behavior can be trained and retrained to optimize productivity. Taylor recognized that workers were motivated by pay and promoted the idea of differential wages based on productivity (Taylor, 1911).

Critical that Taylor's work did not take into consideration psychological factors of the workforce, other scientific management thinkers of the early 20th century focused more on the psychological processes that influence work production. Bolman and Deal (2013) discussed two such influential contributors to the scientific management theory of leadership, Mayo and Barnard. Mayo conducted a series of studies in the 1920s at the Hawthorne Plant of Western Electric Company (Mayo, 1933) where he explored environmental influences of the workplace on employee productivity. He hypothesized that attention to human and social factors, such as modified work hours, breaks and lighting would improve productivity. One interpretation of these studies, called the Hawthorne effect, suggested that a motivational effect occurred when workers were introduced to an environmental change and observed for changes in their behaviors. Productivity increased in the short-term and decreased when the study discontinued. Nonetheless, Mayo's research promoted the idea that organizational leaders needed to consider human and social factors, to impact economic outcomes (Bolman & Deal, 2013; Mayo, 1933). Barnard was a business executive involved in the American Telephone and Telegraph Company during the Depression. He published *The Functions of the Executive*

(1938) where he suggested that successful organizations had two foci: effectiveness (the ability to accomplish stated goals) and efficiency. Unlike Taylor's mechanistic view of efficiency, Barnard suggested that efficiency was the result of the satisfaction of its members in the organization and manifested itself through visible cooperation of employees. To the degree that organizational leaders recognized employee competence and treated them with respect, productivity increased. Barnard proposed that tangible (money, environmental conditions) as well as intangible incentives (opportunities for distinction) contributed to worker motivation.

Taylor, Mayo, and Barnard influenced leadership theory with their emphasis on organizational effectiveness based on mechanistic methods. Although they differed in their approaches to managing human factors of the organization, the basis of their theories was manipulating the workplace environment to maximize productivity. The shift in scientific management to include considerations for human factors occurred concurrent with (or perhaps as a result of) the rise of employee labor laws to address work hours, compensation, safety conditions, child labor. Leadership theory followed suit by exploring leadership as a balance of "concerns for task and people" (Bolman & Deal, 2013, p. 344), which became a central theme in the following decades of leadership research (Argyris, 1962; Cohen & Bennis, 1961).

Trait Theory

A shift in scientific management theory resulted from an increased focus on the human elements of workers that affected work production and the rise in labor laws that addressed working conditions and incentives. Workers were beginning to be viewed as more than machines, but as humans with individual qualities and traits. By matching

individual traits and skills with the job, productivity might be improved. The goal for leadership was to enhance work through the acknowledgement of those human elements.

Trait theory also has its roots in the Great Man theory which attributed innate qualities of leadership to extraordinary people. In the evolution of this leadership research, researchers studied the specific traits that differentiated leaders from followers (Bass, 1990). Many powerful businessmen in the 19th and 20th centuries, such as Andrew Carnegie, John D. Rockefeller, and Henry Ford (Conte & Karr, 2001) were idolized for their business acumen, fierce leadership, and accumulation of wealth. They were studied for traits and skills that were associated with their success. During this period assessment measures were increasingly utilized to identify and measure constructs of intelligence and personality (Binet, 1905; Cattell, 1956) which provided impetus for the examination of specific traits in individuals. Such traits included capacity, intelligence, achievement, responsibility, initiative, persistence, self-confidence, and sociability. Testing and assessments began to be used for the purpose of hiring individuals to match job requirements, predicting success, and for promoting employees. Trait theory began to lose influence as further studies resulted in an abundant accumulation of traits (height, athletic ability, attractiveness, dominance, achievement orientation, locus of control, integrity, flexibility, sensitivity to others, narcissism, etc.) that were all deemed important to leadership (Bass & Bass, 2009; Harrison, 2018; Yukl, 2010). A limitation of trait theory was the lack of empirical research to substantiate personality theory to guide leadership (House & Aditya, 1997; Schönemann, 1997; Sternberg & Wagner, 1993). In addition, the lengthy accumulation and broad range of traits identified as necessary for effective leadership led critics to question how realistic it was for a leader to possess all

or even many of such traits, and that subjective interpretations were often used in defining the traits (Bolman & Deal, 2013; Harrison, 2018, Wright, 1996).

In recent years, the trait approach has re-emerged in the form of transformational leadership (to be discussed later in this literature review) and still remains a popular theory of leadership (Bolman & Deal, 2013; Harrison, 2018).

Stogdill (1948) proposed that successful leaders are not determined by the presence of particular traits, but that the traits possessed must be relevant to the situational demand. Therefore, a successful leader in one situation, such as in an entrepreneurial setting, might be less effective in another situation, such as in a stable organization. Stogdill "did not call for an abandonment of the study of traits, but rather for an interactional approach in which traits would be considered as interacting with situational demands facing leaders" (pp. 19-20).

Contingency Theory

In an effort to address the shortcomings of management and trait theory, researchers and scholars moved towards a contingency theory that postulated no one optimum style of leadership. Effective leaders used different approaches based on the contingencies of the situation (Bolman & Deal, 2023). Fiedler (1978), a prominent researcher in contingency theory suggested that leadership effectiveness depended on how well the personality of the leader, which he agreed with trait theorists was somewhat fixed, matched the situation or context. Did the situation yield conditions where the leader could exercise power, control, and influence? He proposed the least preferred coworker (LPC) scale, with which the personality of the leader could be measured as being relationship-motivated or task-motivated. Fiedler's research tended to focus on high LCP or low LPC leaders, while research suggests that medium LPC leaders are

more effective in a majority of situations (Yukl, 2010), presumably because they balance the concern for tasks and relationships more successfully (House & Aditya, 1997). Other views of contingency theory included the situational leadership model (Hersey & Blanchard, 1993), which distinguished between task and people using a two by two table to identify four different leadership styles: high relationship, low task; high relationship, high task; low relationship, low task; and low relationship, high task. Hersey and Blanchard suggested that leaders matched their style to the subordinate's level of readiness. If a worker demonstrated an ability and willingness to perform, the leader merely delegated a task and allowed the worker to perform. Conversely, if a worker demonstrated an insecurity and an inability to perform a task, the leader provided more instruction and oversight. Hallinger and Murphy (1987) provided an educational illustration suggesting that in effective schools with low socio-economic status (SES), principals played a more directive role in the development and implementation of instructional programs, while in effective high SES schools, they tended to play more of a facilitative role, allowing greater teacher autonomy. The more authoritative approach used in lower SES schools may due to the greater complexity of problems; thus, faculties and parents yielded authority to the principal in intervening in instructional activities. While popular in leadership professional development, Hershey and Blanchard's model lacked empirical research to support it (Bolman & Deal, 2013). In fact, trait theory and contingency theory included nuanced ideas about leadership, and multiple variables that were difficult to isolate and measure quantitatively. Still, Bolman and Deal described the mid- to late-20th century as a time of qualitative and holistic studies in leadership theory as researchers attempted to recognize the dynamic relationship between the nature of tasks and the nature of people.

These situational versions of leadership are viewed as transactional, where the relationship between the leader and the followers is based on negotiated arrangements. Leaders offer jobs and benefits in exchange for commitment and cooperation of the followers (Burns, 1978). Implied in this form of leadership is the predetermined culture of the organization into which the employee or follower agrees to work. Yet, other leadership theorists suggest that the culture of an organization can be transformed to meet the demands of work production and the needs of its people.

Transformational Theory

In the mid- to late-20th century, societal influences were contributing to advocacy for human rights, health care, food assistance, education (Owens & Valesky, 2007). Trends in psychological research surged around human behavior. Economic developments shifted from a dominant manufacturing focus to a service orientation. The workforce changed in nature with the number of workers providing human services eventually outnumbering those who produced goods. These influences affected leadership theory in its recognition of the internal and external environments of the organization, in the interaction between human and organizational needs.

Conceptualized by James MacGregor Burns in his research on political leaders, transformational leadership highlights the cultural nature of leadership. Transformational leadership emphasizes the relationship of its leaders and participants to create vision, responsiveness, commitment, and energy around the needs and work of the organization and its people (Owens & Valesky, 2007). Leaders acknowledge and attend to the full person of the follower, incorporating their motivations, talents, and social values into the goal setting and work of the organization. They encourage a collaborative process in creating their own vision for the school or organization, which leads to a willing

investment of time and effort. The roles of both leaders and followers are transformed based on the interdependence on each other and mutual commitment to achieve the shared goals. The shared vision is in continual need of revision due to changing values and emerging developments. Therefore, a successful leader will continually engage in the dynamic process of restating and reinforcing the shared vision and revising it in light of emerging ideas, influences, and events (Owens & Valesky, 2007).

Bass (1985) identified four elements of transformational leadership which have been used in a multitude of empirical studies as indicators of leader effectiveness, which include charisma, intellectual stimulation, individualized consideration, and idealized influence. *Charisma* is the degree to which leaders provide a role model of ethical behavior, instill pride and gain the trust, respect, and admiration of followers. *Individualized Consideration* is the degree to which the leader demonstrates respect for the personhood of the follower, showing understanding of the follower's needs, acting as a mentor to the follower, provides challenges before the follower, and celebrating successes. In doing so the leader fosters the intrinsic motivation of the follower to do well and complete tasks. *Intellectual Stimulation* is the degree to which the leader encourages the thinking and creativity of followers and solicits innovative approaches to organizational problems. *Inspirational Motivation* is the degree to which the leader inspires followers with a clear vision and strong purpose. These leaders keep performance expectations high while providing meaning to the work and communicating optimism that the goals are achievable. Empirical studies show positive, yet varied, relationships between these four transformational leadership dimensions and leadership effectiveness from the perspective of the subordinates (Bass & Avolio, 1994; Lowe et al., 1996). The variation in findings may be due to moderating effects found at the individual

level (e.g., the age and gender of followers), at the leaders' level in the organization (low versus high level of responsibility) ,and at the organizational level (private versus public).

This transformational leadership model, originally used in politics and business, translated to the educational setting, where principals as transformational leaders help "set a vision, create common goals for the school, inspire and set direction, buffer staff from external demands, ensure fair and equitable staffing, and give teachers a high degree of autonomy," (Hattie, 2015, p. 37). Studies on the effects of transformational leadership in the educational environment have yielded mixed outcomes. Positive effects have been found at the teacher and organizational levels in increased teacher morale, collegial relationships, and job satisfaction. Weak and indirect effects have been found on student outcomes (Leithwood & Jantzi, 2000; Robinson et al., 2008). Criticisms of transformational leadership in the educational arena point to a lack of empirical evidence showing its impact on pedagogical quality and student learning (Marks & Printy, 2003). Essentially, the impact of transformational leadership "is not close enough or intense enough to influence student learning" (Fullan, 2016, p. 133).

Instructional Leadership

The principal's role as leader of the school has responded to the changes in leadership theory over time. Principal roles have evolved from hero, to manager, to inspirational change agent, to instructional leader. Instructional leadership is a broad construct that, with transformational leadership, has dominated the educational literature for the past three decades. Instructional leadership researchers suggest that effective leaders create an organizational culture that centers on teacher instruction and student learning, which is what some claim is missing in transformational leadership (Stewart, 2006). A review of the history of instructional leadership follows to elucidate its

legitimacy in leadership theory as relevant to educational reform, and its use in the current study that pertains to improving instruction and outcomes for students with disabilities.

Educational Reform

A major educational reform movement, called Effective Schools, emerged in the second half of the 20th century. Two reports commissioned by the United States Office of Education provided biting commentary of the educational systems of the time. In accordance with the Civil Rights Act of 1964, the *Equality of Educational Opportunity* (1966) report, referred to as the Coleman Report, appeared at a time of racial tension and continued school segregation. The massive study evaluated criteria regarded as "indicators of educational quality" (Coleman et al., 1966, p. iii), which not only included resources going into the education of a student (textbooks, curricula, and school facilities), but for the first time outcomes via test scores were measured, as well. Conclusions indicated that family factors (parental education, socioeconomic status, home and neighborhood influences, and peer environment) had more bearing on educational outcomes and overall student achievement than school factors (teacher quality, resources, and per pupil expenditure). While some interpreted the report to suggest that schools did not matter in student outcomes (Finn, 1981), a greater public sentiment emerged among policy makers, researchers and educators calling for the reduction of persistent disparities in achievement between various social, racial and ethnic groups (Robinson et al., 2008). A body of research emerged focusing on characteristics of effective education that "overcame" barriers associated with family background (Finn, 1981). Coleman, himself, engaged in such research.

In 1983 the U. S. Department of Education released *A Nation at Risk: The Moral Imperative for Educational Reform*, a grim report on the state of public schools in America. According to the report, American schools were failing: student test scores were falling, illiteracy was growing, and teachers were neither well trained nor well paid. The nation was threatened by the "rising tide of mediocrity" of the educational system. Compared to other countries, the United States was underperforming in science, mathematics, and technology, where once it was the leader. The report provided specific recommendations for reforming the nation's school system: increasing curricular rigor, clearly defined standards throughout the States, and an improved system for teacher preparation and pay (particularly to address the shortage in qualified science and math teachers).

These reports served as catalysts for research in the 1970s and 1980s investigating why some schools were able to overcome the adverse effects of economic disadvantage and family adversity and achieve positive achievement outcomes. Schools studied were typically located in poor urban neighborhoods and served students from low socio-economic backgrounds (Brookover & Lezotte, 1979; Edmonds & Frederiksen, 1979; Weber, 1971). These studies yielded a set of common school factors that were proposed to explain the outperformance of some schools over others, given comparable student populations, socio-economic status and resources. In his synthesis of these studies, Edmonds (1979) noted the following five characteristics of effective schools as: (a) strong administrative leadership; (b) a climate of high expectations for achievement; (c) an orderly school atmosphere conducive to learning; (d) emphasis on basic skill acquisition; and (e) the continual monitoring of student progress. Consistent with other

Effective Schools researchers, he emphasized the importance of the principal's leadership as evidenced by this statement:

> There seems to be a clear difference in the principal's role in the improving and declining schools. In improving schools, the principal is more likely to be an instructional leader, more assertive in his/her institutional leadership role, more of a disciplinarian, and perhaps most of all, assumes responsibility for the evaluation of the achievement of basic objectives (Edmonds, 1979, p. 18).

Subsequently, instructional leadership became a hallmark of effective schools beginning in the 1970's, paving the way for a new era in research and affecting issues of practice, such as educational leadership policy standards (National Policy Board for Educational Administration, 2015), principal preparation programs (Lynch, 2012), and professional development (Hallinger, 2005).

Simultaneous to the Effective Schools movement and the emerging focus on instructional leadership in schools, several federal mandates were a driving force of accountability for all students, including those considered marginalized by race and ethnicity, socio-economic status, language proficiency, and disability. These mandates continue to have significant impact for the principal as the instructional leader.

History of No Child Left Behind (2001) and Every Student Succeeds Act (2015)

Tracing the history of the Every Student Succeeds Act (2015), also traces the dramatic increase of federal involvement in education. Lyndon B. Johnson's presidency brought a sweeping social agenda involving the passage of civil rights laws and over 60 education bills. The 1965 Elementary and Secondary Education Act (ESEA) articulated Johnson's belief that "full educational opportunity"

should be the nation's top priority (Anderson, 2005) in fighting social and economic injustice. His plan utilized *inducements* or the federal grants to schools targeting interventions towards low-income students (Wong, 2015). Such inducements were further utilized by George H. W. Bush and Bill Clinton in the 1980s and 1990s as they pushed for national standards in public education to encourage the attainment of higher educational proficiency, accompanied by state-determined testing (Wong, 2015). Inducements were a political strategy that allowed increased federal involvement in education, while allowing states to retain control of educational programming and management (Anderson, 2005). Over time inducement grant funding was found to lack "teeth" as it did not equate to fidelity of program implementation and student outcomes were not improved (Wong, 2015). By the time that the reauthorization of ESEA was introduced, however, its antipoverty focus and standards for academic proficiency were generally accepted as good ideas, although the controversial ideas of the law were, and still are, centered on accountability, school choice, and adequacy of funding to support its requirements (Alexander & Alexander, 2012; Anderson, 2005).

The reauthorization of ESEA, or No Child Left Behind Act of 2001, substantially expanded the role of federal government in education by demanding accountability of schools through the mandates of adequate yearly progress, statewide assessments, national standards for curricula (currently the Common Core State Standards), and highly qualified teachers and paraprofessionals. Specifically, the law required all students to reach proficiency in reading and math (later science was added) by 2014, which proved to be an unattainable mandate.

In 2015, the Every Student Succeeds Act (2015) replaced NCLB and signaled a reduction of federal authority over education. ESSA eliminated some accountability requirements or moved them to the purview of the States. Highly Qualified Teacher status and Adequate Yearly Progress requirements were eliminated, although States are now responsible for determining annual assessments, the monitoring of student progress and the implementation of systematic interventions.

NCLB and ESSA included special education in all aspects of its accountability system in order to make schools responsive to the needs of struggling students and students with disabilities. As a result, educators are required to align the aims of these federal laws with other civil rights laws affecting education, such as the Individuals with Disabilities Education Act (Nagle & Yunker, 2006).

Response to Intervention and Multi-Tiered Systems of Support

The ESSA requires "evidence-based interventions" for schools with low performing students and provides a recommendation that schools and districts utilize a continuum of evidence-based systemic practices to rapidly respond to student academic and behavioral needs (ESSA, 2015). Increasingly, districts, particularly those challenged by historically underserved and underperforming student populations, are scaling up current interventions to provide more comprehensive tiered systems of support frameworks such as Response to Intervention (RtI) and/or Multi-Tiered System of Support (MTSS). The former (RtI) was originally developed for academic support and intervention; the latter (MTSS) was a later iteration of tiered interventions which incorporates non-academic and academic supports and interventions (American Institutes for Research, 2018). Both systems include elements of team-based leadership, tiered delivery systems, evidence-based instructional and intervention practices, comprehensive

screening and assessment systems, and continuous data-driven decision-making to inform rapid responses to student needs (McIntosh & Goodman, 2016).

Team-based leadership stems from the collaboration of local faculty and administration to create and implement the tiered framework specific to the needs of their school. Tiered delivery systems include three phases. First, the core curricula are systemically and explicitly taught to all students at all levels of learning. Second, modifications are arranged for students identified as non-responders to the core curricula. Such modifications might include additional time with core instruction, materials and instructional strategies matched to student needs to supplement core instruction, and small group instruction/intervention. Third, specialized and intensive curriculum is developed for students whose performance is deemed nonresponsive to the modified core. Based on diagnostic assessment, these students tend to show chronic academic and/or behavioral problems and require individualized instruction and intervention (McIntosh & Goodman, 2016). Evidence-based instruction and interventions are supported by research for their effectiveness in matching student learning needs (Horner et al., 2015). Comprehensive screening and assessment systems are necessary to identify students whose performance is not responsive to instruction, to assess learning progress and the effectiveness of instruction, and to make instructional and intervention adjustments. Such information is incorporated into standardized decision-making protocols to promote the continuous improvement of teacher instruction and student learning (Brown-Chidsey & Bickford, 2016; McIntosh & Goodman, 2016).

Research on RtI and MTSS has shown a connection between academic achievement and student behavior (e.g., Bradshaw et al., 2010). There is research to support low academic performance as a precursor to internalizing and externalizing

behaviors (Maughan et al., 2003; Morgan et al., 2009; Stanovich, 1986) and behavioral problems as predictors of academic difficulties (Fitzpatrick & Pagani, 2012; Morgan et al., 2008). Research has suggested that the implementation of tiered student support systems positively impacts student outcomes (Brown-Chidsey & Bickford, 2016; McIntosh & Goodman, 2016). For example, tiered academic and behavioral supports and interventions have been correlated with decreased problem behaviors as measured by office discipline referrals (Sherrod et al., 2009), reduced suspensions (Bradshaw et al., 2010), increased reading and math achievement as measured by standardized tests (Menendez et al., 2008), improved 3rd and 5th grade reading achievement (Bradshaw et al., 2010; Sugai & Horner, 2009), and improved organizational health within schools (Bradshaw et al., 2008).

The Response to Intervention process was introduced into special education law through the 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA). It was presented within regulatory notes as a method to help identify students with specific learning disabilities, and more specifically to ensure quality and systematic instruction, intervention, and progress monitoring was provided prior to the assessment and identification of a disability.

History of Special Education

Brown v. Board of Education in 1954 was a seminal Supreme Court decision impacting special education. Although the clause "separate educational facilities are inherently unequal" (Brown v. Board of Education, 1954) was primarily intended to stop the racial segregation of African American students from White schools, special education advocacy groups capitalized on the law by bringing attention to the individual education rights of students with disabilities (Alexander & Alexander, 2012). This

opened public school doors for students with disabilities to receive an education, whereas they may have been excluded from school before or taught in institutions.

In the 1970s, three laws functioned as precursors to the Individuals with Disabilities Education Act, the current federal law governing special education. Public Law 91-230, The Elementary and Secondary Education Act Amendments of 1969, consolidated previous legislation pertaining to children with disabilities, creating the Education of the Handicapped Act. It established a legal definition of learning disabilities and model educational centers for students with disabilities. Public Law-93-380, ESEA Amendments of 1974, required States to provide education to *all* children with disabilities and within the least restrictive environment. Due process procedures were also established ensuring protection of student and family rights. PL-93-112, Section 504 of the Rehabilitation Act of 1973 became known as the Bill of Rights for the Disabled. Adopted in 1977, it gave legal definition of a disability as a physical or mental impairment that substantially limited one or more life activities, such as learning. It also protected students and adults with disabilities from discrimination in federally funded programs, such as public education. Further, schools were pushed to provide student with disabilities access to appropriate services and programs, where once they may not have existed. By 1975, however, the effectiveness of these laws was waning, largely due to the lack of federal enforcement mechanisms to ensure States' timely compliance as evidenced by the fact that 1.75 million children with disabilities continued to be excluded from schools (Alexander & Alexander, 2012; Ramanathan, 2008). Disability advocates by this time were gaining serious momentum in their opposition of public education's delay in providing educational services to students with disabilities.

The 1975 Education for All Handicapped Children, Public Law-94-142 passed expanding preceding laws by requiring a free and appropriate education (FAPE) for all children with disabilities ages 3 through 21. It established a contract between the school and parent called an Individual Education Program (IEP), and requirements for special education and related services in the least restrictive environment. The law increased parent involvement and established more stringent procedural safeguards (Alexander & Alexander, 2012). As a whole, the law served to bring students with disabilities previously unserved into the public education fold, as well as to improve services to others.

In 1990, Public Law-94-142 was changed to the Individuals with Disabilities Education Act (IDEA). Although not significantly different than EAHC, IDEA used "people-first" language, added the disability categories of Autism and Traumatic Brain Injury, required transition service plans for secondary students, and allowed states to be sued in federal court for non-compliance (Alexander & Alexander, 2012).

Like ESEA, IDEA has undergone several reauthorizations, the most extensive occurring in 1997, which focused on relaxing eligibility criteria, private school placements, discipline, and procedural safeguards. It served to increase accountability for the quality of programming for students with disabilities through a remodeled IEP (Alexander & Alexander; 2012). The 2004 reauthorization of IDEA, called the Individuals with Disabilities Education Improvement Act (IDEIA), is much like the 1997 Amendment; however, it represented alignment with the No Child Left Behind Act of 2001, as evidenced in several areas of the law: it provided requirements for highly qualified teachers; it increased accountability for student academic achievement through

annual high-stakes testing, as well as through progress on IEP goals, and subjected the special education subgroup to Annual Yearly Progress scrutiny.

Through IDEA the educational opportunities for students with disabilities have unquestionably improved since the 1970s. With the increase in performance accountability resulting from NCLB, ESSA, and IDEA, there is a push for students to be educated alongside peers in the general education setting to the extent deemed appropriate by the IEP team. This has pushed teachers to expand their instructional repertoires to accommodate students with learning and other disabilities, such as Autism, mild cognitive delays, and language and motor impairments. Several unintended consequences of high-stakes accountability for students with disabilities have surfaced since the inception of NCLB and ESSA. Under NCLB, teachers reported feeling unprepared to meet the needs of students with disabilities; further, teachers acknowledged that in addressing the learning needs of lower performing students, they lowered their expectations, often teaching content at a lower grade level; there was also a fear of the personal and school sanctions that could result from failure to make AYP requirements (Sandholtz et al., 2004). Responses to a survey administered after the implementation of ESSA suggested continued teacher skepticism of the accountability system, including annual assessment and systematic interventions, although special education was not specifically measured (Educators for High Standards, 2017).

With each iteration of IDEA, the responsibility placed on the schools to provide quality, meaningful and evidence-based educational experiences for *all* students with disabilities has increased exponentially. This presents complex challenges for the instructional leader of special education programs, teachers, and their students.

Instructional Leadership

During the Effective Schools movement, the term "instructional leadership" became common in educational leadership in the 1980s and narrowly focused the work of the principal around managing teaching and learning. More recent evidence drawn from comprehensive and systematic literature reviews, empirical research on instructional leadership, and comparative studies of educational leadership models has provided support for the construct of instructional leadership and has extended its scope (Bossert et al., 1982; Hallinger & Murphy, 1985; Robinson et al., 2008; Weber, 1996).

Early iterations of the instructional leadership construct assumed a direct relationship between principal behaviors and student outcomes. The direct effects model proposed that the instructional leadership effectiveness could be directly measured by comparing the relationship between principal actions and student outcomes. The model proposed by Andrews and Soder (1987) defined the principal as *resource provider*, *instructional resource*, *communicator*, and *visible presence* in the school. As *resource provider*, the principal recruited personnel and garnered materials and resources to maximize achievement towards the school's goals. As *instructional resource,* the principal set high standards for instructional improvement, providing professional development and classroom support to enhance learning. As *communicator*, the principal modeled and articulated commitment to the school vision and created a means for teachers to integrate instructional planning towards these goals. As *visible presence,* the principal engaged with teachers and students in the classroom, and during grade-level or department meetings. In a two-year study, reading and math gains were significantly stronger in schools classified as having strong principals compared

to schools rated as having average or weak leaders. The gains made by students classified as black and/or students on free-and-reduced price lunch status were particularly pronounced.

Bossert et al. (1982) identified instructional leadership as the role of the principal, also recognizing an indirect or mediated effect of principal behaviors on student outcomes. They found principal activities central to influencing teaching and learning in a fairly linear fashion. The principal's role was to foster a focused and distraction-free learning environment, promote clear learning targets and instructional objectives, and communicate high achievement expectations to students. Bossert et al. (2012) recognized that principal actions were also shaped by personal characteristics (demographic and dispositional), as well as by organizational context (school, district and community demographics, socio-economic factors, and socio-cultural features). A principal classified as having strong leadership qualities in school A may have different results in school B by nature of the varying profile and needs of the school. In short, while Bossert et al.'s model suggested that effective principals were strong, directive leaders, goal-setters and culture builders, they recognized that their influence was mediated by contextual factors (Hallinger & Murphy, 1985; Leithwood et al., 2002).

Blasé and Blasé (1999) provided a model of instructional leadership that recast the role of the principal as the supervisor of instruction to a facilitator of student growth through teacher and environmental mediating factors. In a perceptual survey of 800 teachers, Blasé and Blasé (1999) found that effective principals engaged in principal-teacher interactions centered on instructional improvement, reflective practice, teacher collaboration, coaching, encouraging action research, and the application of adult

learning principles. When the principal talked "strategy" and promoted professional development, teachers reported enhanced effects consisting of positive emotional, cognitive and behavioral changes in their pedagogical practices (Blasé and Blasé, 1999).

Pitner (1988) provided a theoretical model for the possible link between school leadership and student achievement called the *reciprocal effects model*, reflecting the dynamic nature of the interaction between principal leadership, intervening variables, and student achievement. The model assumes that some or all of the relationship between principals and student achievement occurs by way of interaction with features of the school organization, most notably, teachers (Hallinger & Heck, 1996). The principal, then is both a dependent variable, when subject to organizational variables, such as teachers, students, parents and organizational culture, and an independent variable, when influencing the actions of the teachers, school, and achievement (Appalachia Educational Laboratory, 2005).

Hallinger and Heck (1996, 1998, 2011) developed a more contemporary model of instructional leadership that continues to acknowledge the principal as the primary conductor of school improvement, while recognizing their activities as having largely indirect or reciprocal effects on outcomes. In their model, they suggest three roles of the principal: (a) defining the school mission; (b) managing the instructional program; and (c) promoting a positive school learning climate, further explained by ten principal dispositions. Effective principals *define school mission* by both *framing* and *communicating clear school goals*. Principals *manage the instructional program* by *coordinating the curriculum, supervising and assessing instruction*, and *monitoring student progress*. Principals *promote a positive school learning climate* by *protecting*

instructional time, providing incentives for teachers, promoting professional development, maintaining high visibility and *providing incentives for learning.* Hallinger and Murphy's (1985) work on instructional leadership led to the development of the Principal Instructional Management Rating Scale (PIMRS), which is the most widely used measurement of instructional leadership to date and is also used in this study.

More recent research has broadened the focus of instructional leadership to include more the contributions of teachers and others in the educational community. Marks and Printy (2003) conceptualized a shared instructional leadership model and viewed the role of the principal as the leader of the instructional leaders. The distributed leadership model (Spillane et al., 2001) suggests that leadership is stretched, or distributed, across many people. Leadership is dependent upon the people, task and situation; therefore, leaders may change based upon who is most prepared to fulfill the needs of the situation. The teacher leadership model utilizes the expertise of experienced and influential teachers in their fields to engage with administrative tasks that will promote the goals of school improvement (Kolderie, 2014). These conceptual shifts represent a trend in research that moves away from the heroic nature of principal leadership and towards decentralization of authority in schools. These more recent conceptualizations may show promise but lack consistent construct definitions, established methodology, and a sound body of research.

Seminal studies that have informed more current iterations of instructional leadership include Hallinger and Heck (1998), Pietsch and Tulowitzki (2017), and Robinson et al., (2008). Hallinger and Heck (1998) reviewed available literature on instructional leadership published between 1980 and 1995. The authors noted that over the span of 15 years, methodologies and models evolved to study the impact of leadership

on learning. For example, studies of direct-effect models chronologically moved from bivariate methodology (correlation, t-tests, or chi square) to more sophisticated analyses such as regression and structural equation modeling. Of 22 indirect- or mediated-effect models and reciprocal effect models studies, 17 showed statistically significant effects, 15 of which used regression or structural equation modeling, 3 showed mixed effects, and 2 showed no effects. The authors concluded that principals significantly impacted students' performance through mediating variables, such as other school staff, events or organizational factors. Hallinger and Heck (2011) further investigated the use of structural equation modeling to describe reciprocal-influence models of instructional leadership and learning. They affirmed the bi-directionality of leadership factors, mediating school factors and school outcomes.

Pietsch and Tulowitzki (2017) tested differential mediating effects under transformational leadership and instructional leadership models using structural equation modeling (SEM). Based on earlier work by Leithwood et al. (2002), they presumed the following dimensions of principal leadership: (a) principal's leadership influences on working conditions (organizational and cultural context relevant for learning); (b) capacity beliefs (self-efficacy or the belief in one's ability to perform required tasks of the job); and (c) the motivation and commitment of teachers (promoting personal goals and beliefs of teachers). They hypothesized that these interdependent variables influenced teaching practices, which in turn, influenced student achievement. Data were collected between 2012 and 2015 from 126 schools and 3,746 teachers. Teachers completed surveys comprised of questions from two validated instruments, the Multifactor Leadership Questionnaire (MLQ), used to measure transformational leadership, and the Teaching and Learning International Survey (TALIS), an eight-item Likert scale derived

from the PIMRS. The items loaded onto seven categories, five of which were relevant to Pitner's study: school leadership, instructional practices, working conditions, motivational factors, and capacity. Data were analyzed using structural equation models (SEM) using full maximum likelihood estimation. The fit of the models was assessed using comparative fit indices (CIF), the root mean square error approximation (RMSEA), and the standardized root mean square residual (SRMR) provided by the SEM. Of five alternative models, a bi-factor model best fit the data (χ^2 = 4.29/*df* = 348; TLI = 0.92; CFI = 0.93; RMSEA = 0.06; SRMR = 0.04), suggesting that principals tend to exhibit transformational or instructional leadership behaviors rather than global leadership behaviors, a unidimensional model (worst fit). The path diagram indicated that principals have a strong influence on the working conditions of teachers ($R^2_{\text{Collaboration}}$ = .71, $R^2_{Participation}$ = .74), and a smaller influence on staff motivation ($R^2_{\text{Commitment}}$ = .58, $R^2_{Satisfaction}$ = .71). Model variables are shown to impact capacity beliefs (R^2_{Capacity} = .38).

Testing total effects of leadership facets on mediators, transformational leadership was most strongly correlated with job satisfaction (β = .30), while having statistically significant correlations with collaboration (β = .11), participation (β = .14), commitment (β = .17), and capacity (β = .13). Total effects of instructional leadership facets on mediators were shown to be statistically significant in teacher collaboration (β = .20), capacity (β = .28), participation (β = .28), commitment (β = .28), and job satisfaction (β = .10), with small total effects on classroom management (β = .07) and enhanced activities (β = .06).

Related to the instructional activities of teachers, transformational leadership facets had a direct positive effect on enhanced activities defined as providing challenging

content (β = .08), while instructional leadership facets were shown to have positive indirect and direct effects on classroom management (β = 0.07 and β = .10, respectively) and enhanced activities (β = .05 and β = .23, respectively), and direct positive effects on student orientation (β = .22). In sum, instructional leadership was shown to have direct as well as indirect effects on all of the investigated instructional dimensions. As a result of this study, the investigators support the argument that principals are influential in their impact on both the human and organizational elements of the work environment.

Robinson et al. (2008) investigated the impact of transformational and instructional leadership models on academic and non-academic outcomes. They used the methodology of meta-analysis, which enabled them to conduct a quantitative examination of relationships between empirical measures of leadership and student outcomes. They organized their study around the question, "*what type of leadership produces the greatest effects on student learning?"* (Hallinger & Wang, 2015, p.14). In their first meta-analysis, they synthesized findings from 27 studies conducted between 1978 and 2006 that compared the effects of transformational leadership and instructional leadership on student outcomes. The investigators defined the role of the principal in transformational leadership as a facilitator of teacher growth inspired by energy, commitment and moral purpose (Bass & Avolio, 1994; Burns, 1978; Robinson et al., 2008). Eighteen of the 27 studies were conducted in the Unites States; sixteen studies were conducted in elementary schools, four in high schools, and seven in mixed elementary, middle, and high schools. Twenty-two of the studies examined academic outcomes only, while four included social and attitudinal outcomes only, and one study included both types of outcomes. It was possible to calculate effect sizes in 22 of the 27 studies. "Statistical measures of the

relationship between types of leadership and student outcomes were converted to *z* scores derived from statistics employed in the original studies" (Robinson et al., 2008, p. 653), including *t* tests, regression, and path and correlation coefficients. Effect sizes ranged from 0.02 to 1.10 in the 12 studies employing the instructional leadership framework. The mean effect size was in the medium range (*ES* = 0.42). Seven of the 12 instructional leadership studies utilized surveys or constructs directly related to Hallinger and Murphy's (1985) instructional leadership model. This is in part, due to the fact that Hallinger and colleagues have produced the largest body of research on instructional leadership and his Principal Instructional Management Rating Scale (PIMRS) has been used in over 250 studies to survey principal characteristics of instructional leadership (Hallinger and Wang, 2015). The five studies using the transformational leadership framework, effect sizes ranged from -.22 to .68 with a small mean effect size (*ES* = 0.11). The remaining five studies which employed a variety of theories did not produce effect sizes. Based on the effect sizes, Robinson et al. (2008) suggested that the impact of instructional leadership was over three times greater than that of transformational leadership.

In Robinson et al.'s (2008) second meta-analysis, they examined dimensions of leadership practices by disaggregating leadership variables and measuring the impact of each variable on student outcomes. Twelve of the 22 studies included in the first meta-analysis were used in the second meta-analysis as they allowed for the calculation of effect sizes on distinct leadership variables. "The inclusion of a mean effect size for a single study indicates that we were able to calculate separate effect sizes for the components of a composite leadership variable" (p. 654). Five categories of leadership variables were derived from the survey items or constructs used in the twelve studies.

The dimension *Promoting and Participating in Teacher Learning and Development* yielded a large mean effect size (*ES* = 0.84; *SE* = 0.14). Items loading onto this dimension suggested that in schools where students performed at or above expected levels, leaders moved back and forth between being leaders of learning and learners themselves. They actively engaged in formal and informal learning contexts, such as professional development, staff meetings, and informal discussions about issues of practice. The principal was seen as a source of instructional advice. Mean effect sizes were in the medium range for *Establishing Goals and Expectations* (*ES* = 0.42; *SE* = 0.07), and *Planning, Coordinating, and Evaluating Teaching and the Curriculum* (*ES* = .42; *SE* = 0.42). Item analysis of the former, *Establishing Goals and Expectations,* revealed that effective principals made academic goals a top priority and aligned school and classroom objectives, routines and procedures with these goals. Items loading on the latter dimension, *Planning and Evaluating Teaching and the Curriculum* reference principal participation in curricular planning and promoting teacher learning goals; they were visible in classrooms and continuously involved staff in evaluating evidence of student learning. The dimensions with the smallest mean effect sizes were *Strategic Resourcing* (*ES* = 0.31; *SE* = 0.10) or securing resources aligned with instructional purposes and *Ensuring an Orderly and Supportive Environment* (*ES* = 0.27; *SE* = 0.09) which relates to cultivating a safe and trusting environment through clear and enforced social expectations for students and staff and discipline codes. These dimensions are categorized as having small and indirect impact on student outcomes. Robinson et al. (2008) concluded that their findings support and extend the construct of instructional leadership. They contend that the work of the principal is based in pedagogy, and how

they impact teaching and learning is found in promoting the school mission, managing the curriculum, and providing a learning climate.

In sum, empirical research supports the construct of instructional leadership. Early iterations of the construct were principal-centered and studied the tasks principal performed in effective schools. Hallinger and Murphy's conceptualization expanded construct included three dimensions of instructional leadership linked with school effectiveness, including defining the school mission, managing the instructional program, and promoting a positive school learning climate. Empirical research generally supports this expanded construct with findings supporting the mediating effects of principal behaviors on teaching and learning.

Instructional Leadership for Students with Disabilities

IDEA's requirement that students achieve meaningful outcomes, access the general curriculum within the least restrictive environment, participate in assessments commensurate with grade level peers, suggest strongly that placement begins at the home school and under the leadership of the school principal (DiPaola & Walther-Thomas, 2003; Lasky & Karge, 2006). This responsibility is supported by the Professional Standards for Educational Leaders (National Board for Educational Administration, 2015): "Effective educational leaders develop, advocate, and enact a shared mission, vision, and core values of high-quality education and academic success and well-being of each student" (p. 9), and more specifically they

> In collaboration with members of the school and the community and using relevant data, develop and promote a vision for the school on the successful learning and development of each child and on instructional and organizational practices that promote such success (p. 9).

While the expectation is that principals will serve as the instructional leader for special education teachers and students, principals consistently note a lack of preparation, knowledge or practice in assuming this responsibility (Lasky & Karge, 2006; McHatton et al., 2010; Pazey & Cole, 2013). Several studies have noted that while most principals have frequent involvement with special education issues, their involvement may be limited to requirements related to federal and state laws more so than in incorporating a vision and learning climate that includes special education.

Bays and Crockett (2007)

Bays and Crockett (2007) conducted a qualitative study using the grounded theory method to examine how instructional leadership for special education occurs in elementary schools. They investigated three areas, in particular: (a) the supervisory practices used for specially designed instruction; (b) the needs that were addressed by these practices; and (c) the conditions that resulted in supervision conducted as it was. Observational and interview data was collected from nine elementary schools within three school districts in the southeastern United States. The districts had similar enrollment sizes ranging from 1,000 to 3,000 students and similar administrative structures (e.g., small central office administrations, no assistant principals). Enrollment for each school ranged from 123 to 560 students with special education enrollments between 12% and 18% of the total student population. Participants included 9 principals, 24 teachers, and 3 directors of special education. Interviews within each school included the principal, at least one special education teacher, and one general education teacher who taught students with disabilities in a general education setting. Participants' educational experience ranged from one to 33 years. Open coding and axial coding measures were used to examine observational and interview data as discrete units,

identify conceptual categories, investigate the crosscut and links between categories. Selective coding integrated and refined the categories into a theoretical scheme that was "central to the phenomenon of interest" (Bays & Crockett, 2007, p. 149).

Overall findings suggested principals utilized a mode of dispersion of leadership responsibility to others for the provision of instructional leadership. Principals, although visible in schools, minimally interacted with special education teachers about instructional improvement for special education. Principals relied on special education directors and special education teachers for issues of programming, instruction, professional development, and regulatory compliance. Principal interactions with special education teachers about the improvement of instruction for special education was limited, and interactions often centered on paperwork and IDEA requirements. Teachers noted a heavy reliance on their peers for instructional feedback and support.

Specific themes resulting from the investigation of the research questions suggested: (a) the principal was designated as the instructional leader of the school; however, they were constricted by limitations in their knowledge of the purpose of special education and of the implementation of quality individualized instruction, or specially designed instruction; (b) principals negotiated competing priorities of daily management and operational oversight, legal compliance, and quality of instruction for the general education program; and (c) contextual factors influenced principal leadership. Contextual factors were identified as personal and systemic. Personal factors included understanding of special education, and the ability to evaluate competent special education teachers and quality instruction. Systemic factors included central office administration structures, school size, time constraints, and the number of special programs within the school.

Bays and Crockett (2007) concluded "that the causal dispersion of instructional leadership that we observed threatens the quality of specialized instruction" (p. 158). They provided the following recommendations for principals as they negotiate the competing responsibilities of instructional leadership: (a) pursue a vision of effective instruction for students in special education; (b) build a culture of trust, collaboration, and academic press among all school members; (c) provide meaningful support to teachers working with students with disabilities; and (d) monitor the provision of specially designed instruction and related services.

Frost and Kersten (2011)

Frost and Kersten (2011) conducted a mixed methods study of principals' perceptions of their role of instructional leadership for special education. The larger aim of the study was to determine the extent to which elementary school principals understand and incorporate knowledge of special education into their instructional leadership with special education. Specifically, the investigators explored principals': (a) knowledge of special education, and (b) instructional leadership involvement with special education teachers. Principals from 56 elementary schools in one county in Illinois participated in the survey. Of the participating principals, 66% reported one to eight years of experience, 22% had nine to twelve years of experience, and the remaining respondents had 13 or more years of principal experience. All principals had master's degrees and 9% held doctoral degrees. Additionally, 25% held teacher certifications for special education. School sizes predominantly ranged from 301 to 600 students. Using a 41-item electronic survey, data was gathered on "principal's knowledge of the legal, foundational and contextual aspects of special education" (Frost & Kersten, 2011). Additionally, frequency methods were used to measure how often principals reported

engaging in specific instructional leadership behaviors with special education teachers. Finally, principals responded to open-ended questions about their perceived role with special education teachers.

On an item-by-item analysis, results indicated that on a scale from 1 (limited) to 5 (excellent) principals rated their knowledge of special education with a mean span from 3.43 (average) to 4.32 (good). The highest principal ratings were in their knowledge of their district's Response to Intervention (RtI) plan (4.32). This high rating was explained by the district's initiative to utilize RtI as a general education approach to academic and behavioral intervention and a pre-requisite to special education eligibility. The next three highest rated areas were: (a) knowledge of their district's related services delivery model (4.30), (b) the continuum of services within their district (4.28), and (c) the parents' role in the IEP process (4.28). Of these areas, all but one fall under the category of foundational knowledge. The lowest rated areas were: (a) development of special education program improvement plans (3.43), (b) knowledge of state learning standards for students receiving special education services (3.55), and (c) knowledge of state special education rules and regulations (3.57). These lowest rated items fall in the categories of legal and context knowledge.

Principal perceptions of their level of involvement in instructional leadership activities with special education teachers yielded mean scores from 2.89 (Seldom) to 4.55 (Always), suggesting a wide range of reported principal involvement. The highest rated activities included conducting formal evaluations (4.55), hiring teachers (4.32), and visiting classrooms (4.32). The activities in which principals were least involved included attending professional development related to special education legal issues (2.89), monitoring alignment of IEPs to state standards (3.17), and planning program

improvement for special education (3.17). The investigators suggest that the variance in reported knowledge of special education and involvement with special education teachers indicates that principals may not be applying their knowledge to the daily practice of instructional leadership with special education teachers.

McHatton, Boyer, Shaunessy, Terry, and Farmer (2010) Study

The McHatton et al. (2010) study examined practicing principals' perceptions of the degree to which their administrator preparation program addressed necessary knowledge and skills to effectively work with educators of children in special education and gifted programs. The authors proposed that amidst the federal mandates of NCLB and IDEA (2004) to be "learning leaders in the teaching, learning and implementation processes" (p. 3), principals needed a foundational knowledge in special education, not only implementing legislation and attending to legal issues, but also in the academic and social characteristics of students with disabilities and instructional effectiveness. Academic and social characteristic address current foci such as self-determination practices, functional behavioral assessments, and universally designed lessons.

Participants included 169 principals from a large district in Florida that served 20,000 students at the time of the survey, 42% classified as White and 58% from diverse racial/ethnic backgrounds. Seventy-five percent of respondents were classified as White, female, ranging in age between 45 and 64 years and as having Master's degrees. Most respondents had 10 or fewer years of experience (88.4%). The majority of respondents noted that the same administrator was responsible for special education and gifted programs (66%). Special education program models described by the respondents included consultation, co-teaching, resource, academic and/or enrichment pull-out and self-contained. Four of the respondents had a degree in special education, three at the

undergraduate level, and one at the master's level. The response rate was low at 36% (n = 61) which was a limitation to the statistical analysis.

A 5-point Likert scale survey was comprised of the following six subsections: (1) demographics; (2) level of preparation; (3) practice (how often principals participated in specific activities); (4) perception of self-efficacy (their ability to address special and gifted education issues); (5) knowledge of effective teachers of exceptional and linguistically diverse exceptional students; and (6) perceptions of exceptional students, their parents and their teachers. The study only reported on the first four subsections. Cronbach's alpha was used to estimate reliability for the subsections of *preparation* (.94), *practice* (.69), and *perception of self-efficacy* (.91). The items under *preparation* and *perceptions* showed good internal consistency, while items under *practice* were shown to be acceptable measures of the construct but not to the degree of the others (Pallant, 2013).

A multivariate analysis of variance (MANOVA) tested for differences by group membership (gender, age, race, school type, school level, school size, principal experience, and courses taken in exceptional education) in each of the dependent variables: principal preparation, practice and perceptions of self-efficacy. There were no statistically significant differences in group membership categories in each of the areas of preparation, practice and perception of self-efficacy, with the exception of self-reported race [☐ = 0.74, $F(6, 110) = 3.05$, $p < .01$] and school size [☐ = 0.56, $F(18, 141.91) = 1.79$, $p. = .03$]. Due to unequal group membership, univariate analysis of variance (ANOVA) testing using the Welch adjustment was conducted for race and school size. Results suggested a statistically significant difference of practice based on race [$F(2,$

10.66) = 18.15, *p.* < .001], but not school size. Tukey testing did not reveal differences in race categories. No correlational analyses were conducted to explore relationships among the dependent variables; however, frequency data was reported for each of the three variables. Chi-square tests of significance showed statistically significant results for participants who had taken gifted education courses and the type of school at which they worked (χ^2 (2) = 6.54, *p.* = .04). In both urban and suburban schools, there were more participants who had not taken gifted education classes compared to those who had taken such classes; in rural schools, more participants had taken gifted classes than those who had not.

In the area of preparation, respondents indicated that their preparation programs contained the following courses specific to special education: (a) no courses (49.2%, *n* = 30); (b) one course (26.2, *n* = 16); (c) two courses (13.1%, *n* = 8), and (d) three or more courses (11.5%, *n* = 7). Respondents (75.4%) noted the course content largely focused on legal issues, followed by funding (approximately 50%), and modifications and accommodations (24% - 31.1%). Professional development through school districts primarily focused on accommodations and modifications (85.2%) followed by legal issues (77%). Discipline issues and characteristics of students with disabilities were also covered through district professional development (55.7% - 59%). When asked in what areas further professional development was desired, 37.7% indicated the area of accommodations and modifications, whereas the majority of responses indicated that no further professional development was desired in a particular area. Similar responses were indicated in the area of gifted education preparation courses and professional development, although to a lesser degree.

In the area of practice, 62% to 97% rated their levels of participation as

occasionally, frequently, or daily in the activities of facilitating department (special or gifted education) meetings, initial placement meetings, IEP meetings, teacher observations and reviewing lesson plans. When asked to rate their agreement with the statement that their educational leadership prepared them for these activities, the majority of responses fell in the disagree and strongly disagree categories, while 36% agreed. Principals felt best prepared in conducting teacher observations. They felt least prepared to deal with initial placement meetings (62.3%) and annual IEP meetings (64%). Twenty-five percent of responses were neutral.

The research findings suggest that principals' perception of self-efficacy in the same areas listed above (legal issues, characteristics, modification and accommodation, discipline, and funding) are similar for special education and gifted education. The majority of respondents agreed or strongly agreed (50.8% to 80.4%) that they thought they were prepared to deal with each of these issues, 8.2 to 25% were neutral, and 4.8% to 23% disagreed. Respondents felt less efficacious in legal and funding issues in both gifted and special education.

Results from this study indicate that principals do not report adequate training for special education leadership in their preparation programs or district professional development, and that the content of their preparation program did not align with their daily leadership activities in special and gifted education. These results are not surprising as there is likely insufficient time in principal preparation programs to address all of the responsibilities of principals in the current "accountability era." The difference in focus between preparation programs (legal issues and funding) and district professional development (modification and accommodation) may have to do with the latter addressing the compliance and achievement issues related to NCLB and IDEA, where principals are responsible for

creating conditions that improve the outcomes of students with disabilities. Principals do report feeling able to handle special education issues that arise in their buildings and the majority of them do not desire further training on a particular topic. These findings may suggest that principals are indeed effective in dealing with special education issues; however, other research suggests that principals spend a great deal of time dealing with issues of special education and that legal issues remain high in special education (Pazey & Cole, 2013). They may also indicate a discrepancy between what participants think they know and what they actually know or have time to learn. As most school districts employ a special education administrator and/or teacher leader, many principals (Bellamy et al., 2014) report a dispersion of responsibility to the special education experts. The authors suggested that given the increasing complexity of the principal role, universities and state educational agencies would do well to align university and district professional development to sequence issues of theory and practice throughout a principal's career.

Limitations to the study include the lack of generalizability given the study was conducted in one southeastern school district. Methodological issues may have been avoided with a larger sample size that would allow for more statistical analysis. This would be helpful in determining relationships between the dependent variables (e.g., preparation and perceptions of self-efficacy), as well as differences based on demographics. There were not enough respondents in some race membership groups to allow further study. The most informative results stemmed from the frequency data, which seemed sufficient to support the authors' stated theoretical constructs of principal preparation, practice, and perceptions of self-efficacy in special education leadership. This being the case, their conclusion that discrepancies exist between sufficient principal preparation and professional development for the nature of providing leadership in

special education areas is supported. Given methodological issues, this study warrants replication with a larger sample size to verify the validity of the instrument and reliability of outcomes.

Wakeman, Browder, Flowers, and Ahlgrim-Delzell (2006) Study

The purpose of the Wakeman et al. (2006) study was to determine the knowledge base of secondary principals related to special education issues. The investigators conceptualize two domains of knowledge—fundamental and current issues. Fundamental knowledge is defined as basic understanding of the purpose and history of special education and its students: (a) professional practice, such as reflection and collaboration; (b) all teachers teaching all students, (c) characteristics of disabilities, (d) historical and recent legislation, and (e) influences of diversity when considering learning differences. The authors describe current issues as those that stem from research that affect policy and practices in special education, such as issues of accountability, early intervention, and access to general curriculum (Wakeman et al., 2006).

The investigators sought to answer the following two research questions:

1. What is the level of understanding by principals of special education issues?
2. What is the relationship between principal demographics, training and experiences, school performance, and beliefs and practices and the five factors of principal knowledge of special education?

A representative sample of 1,000 members of the National Association of Secondary School Principals (NASSP) were randomly selected to participate in a mail survey. The response rate was 36% (362 respondents), considered lower than recommended although it was a good sample size (Tabachnick & Fiddell, 2013). The investigators developed the survey instrument and provided evidence of following a

sound process in its initial testing (Pett et al., 2003). A combination of descriptive and inferential statistics was used for data analysis.

Demographic information indicated that 75% of respondents were male; 45% were between 51 and 60 years of age, and 30% were between 41 and 50 years of age. The majority of principals served students with high-incidence disabilities, such as learning disabilities, while 70% served students with low-incidence disabilities (such as Autism or Intellectual Disabilities). Six questions related to principal training. The vast majority of principals (92%) reported not having a special education teaching certification. Over half of the principals reported having no higher-level special education classes as undergraduates, while 17% had one course. In administrator training programs, 46% had zero courses and 28% had one special education course, and in graduate training, 66% had zero courses, and 12.5% had one course. Principals noted that they received "a little" (48%) or "some" (38%) information about special education in their principals' preparation programs. Principals relied on special education resources within their district (74%) or school (59%). Of the 49% of respondents who reported having a relationship with an individual with a disability, 41% of those respondents identified that individual as an extended family member.

The 3-point Likert-type instrument included seven questions on principal beliefs about special education issues in light of diversity and accountability status, and seven questions about principal practices in regard to special education programs and students with disabilities. Principals overwhelmingly agreed that all students are the responsibility of the principal (99%) and teachers (95%), are welcomed regardless of diversity (94%), have access to general curriculum (93%), are held to high expectations (92%), and have access to general education classrooms (81.5%). With regard to principal practices,

agreement ranged from 75% to 92% in areas that promoted a culture of inclusion, provided resources for inclusive teachers, utilized reflection to consider post hoc actions and decisions, regular collaboration with staff, participation with IEP meetings and risk-taking.

Finally, the survey included 26 items about principal knowledge of *fundamental* and *current* issues in special education with ranked responses of *limited, basic* or *comprehensive*. The average mean on 23 of the 26 knowledge items was at or above 2.0, suggesting principals have basic knowledge in these areas. Factor analysis was used to examine the constructs of principal knowledge of fundamental and current issues in special education (Pett et al., 2003). Five factors were extracted using an orthogonal rotation which accounted for 59% of the variance. The factors were: *daily routine*, and included the highest ranked items that reflected daily practices of principals in parent/teacher collaboration, discipline, and advocacy; *legislation* to include the bank of second highest ranked items, related to NCLB and IDEA; *fundamental knowledge*, such as characteristics of disabilities and inclusive school climate; *current issues* which had lower ranked items and included topics in current literature such as positive behavior supports, inclusion, and transition; and *evaluation,* which had the lowest ranked items, as described by instructional practices, program evaluations and universally designed lessons. In response to the investigators' first research question, these findings indicated that principals rated their knowledge of the fundamental issues of special education and special education law as higher than their knowledge of current issues.

To answer the investigators' second research question, the 26 knowledge item scores loaded on to each of the five factors were averaged and analyzed with demographic information using a Pearson product-moment coefficients. There were

statistically significant, although weak, correlations between three demographic items (percentage of students with disabilities, special education certification, and personal experience) and four of the five factors, *daily routine*, *current issues*, *fundamental knowledge*, and *knowledge of legislation*. Only special education certification showed a relationship to the factor *evaluation*. There was a negative and weak correlation between age and *daily routine.*

Using Pearson's *r*, statistical analysis of the seven principal belief items about special education indicated statistically significant correlations between the belief about access of students with disabilities to general education classrooms and *evaluation* and *fundamental knowledge.* The belief that the principal was responsible for the education of all students showed a statistically significant relationship with *fundamental knowledge.* Lastly, statistical analysis using Pearson's *r* was conducted on the seven principal practices related to special education knowledge. The practice of reflection was statistically significant and had the highest correlation with the five factors (*r*s = .19 to .30). Statistically significant and moderate correlations were found between program decisions (*r*s = .17 to .26) and regular meetings with teachers (*r*s = .14 to .23).

Wakeman et al. (2006) report that secondary principals perceive themselves to be well informed about special education issues, with significantly more fundamental knowledge about special education and special education law than about current issues. Principals report lacking knowledge on topics of self-determination, functional behavior assessments, and universally designed instruction. These are central constructs investigated in disability research influencing instruction and policy in special education. Self-determination, or one's ability to understand personal strengths and limitations, and to advocate for necessary accommodations, is a goal in helping students with disabilities

transition to their post-high school lives. Functional behavioral assessments are based on current research on understanding and modifying behavioral issues in students and also a mandated practice through IDEA. Universally designed lessons are instructional planning strategies that facilitate access of a student with disabilities to the general education curriculum. The authors argue that topics such as these are important practical issues in special education of which principals need to be aware in order to support students and staff in their implementation.

The Wakeman et al. (2006) study provides a helpful example of an investigation that shows the correlation between principal knowledge and practice. The investigators provided a thorough literature review to support their theoretical construct of principal knowledge. They followed the literature review with a study that utilized a recommended research design (Pett et al., 2003; Tabachnick & Fiddell, 2013). Their design had some limitations in the lower response rate and violation of parametric assumptions that may have affected results. Given that it used exploratory factor analysis to identify underlying variables of principal knowledge, replication studies using confirmatory factor analysis for verification of variables underlying principal knowledge is warranted. The current research study used a self-report format that has the potential for response bias (Pett et al., 2003). Further research should also look at possible relationships between principal knowledge and student achievement.

Cook, Semmel, and Gerber (1999) Study

The Cook et al. (1999) study compared the attitudes of principals and special education teachers regarding the inclusion of students with mild cognitive disabilities. It is included in this literature review because leading a staff to develop inclusive values and a system for decision-making about inclusion is a challenging but necessary

responsibility for a building principal (National Policy Board for Educational Administration, 2015). It is relevant to gauge principal perceptions of their readiness to facilitate such work. The study examined attitudes of school principals and special education teachers about the inclusion of students with mild disabilities (e.g., learning disabilities) into general education classrooms. Participants included 49 principals and 64 special education teachers from 57 schools (33 elementary schools and 24 junior high schools) in two southern California counties, all of which employed inclusive practices for their students with mild disabilities. While it was not a large overall sample size according to Tabachnick and Fiddell (2013), the response rate of invited principals and special education teachers was high at 81.88%. Participants were asked to rate their personal opinions on a 21-item Likert-type survey questionnaire about the inclusion of students with mild disabilities. Response options included 1 (Strongly Disagree), 2 (Disagree), 3 (Undecided), 4 (Agree), and 5 (Strongly agree). The survey was developed from the Regular Education Initiative Teacher Survey, which is "a confirmatory factor analytic tool to investigate the attitudes of teachers to the primary components of proposed inclusion models" (Cook et al., 1999, p. 201). Seven of the highest loading factors were selected for the study as representative of a breadth of attitudes about inclusion. Descriptive analysis was used to describe the attitudes of respondents with minimal information on the testing of assumptions provided. Univariate means and standard deviations were reported for each item. Mann-Whitney *U* tests were used to analyze the differences between the principal group and special education teacher group responses on the seven items. The differences in principal and special education teacher perceptions of inclusive practices for special education students were reported.

The majority of principals and special education teachers agreed (agreed or

strongly agreed) with Item 1, that the special education teacher should assist in the instruction of both students with mild disabilities and other students experiencing learning difficulties (88% and 77% respectively). Effect sizes were not reported by the investigators but are provided by the author of this paper as recommended by Pallant (2013). The difference in means was statistically significant, $Z = 2.17$, $p = .02$. The effect size was small (.20). They also agreed with Item 11, that if students with mild disabilities are placed full time in the regular class, then currently mandated special education resources for their instruction must be protected (76% of principals and 94% of special education teachers), $Z = -3.38$, $p = .0007$. The effect size was medium (.31). Seventy percent of principals agreed with Item 7, that regular teachers cannot meet the academic needs of students with disabilities in their classrooms, compared to 58% of special education teachers in agreement. The difference in means between groups was not statistically significant. Principals and teachers were more divided on Item 20, that the regular classroom with special education consultant services is the most effective environment to educate students with mild handicaps (63% compared to 27% respectively), $Z = 4.14$, $p < .0001$. The effect size was medium (.38). More special education teachers disagreed with Item 14, that regular class teachers have the instructional skills to teach both students with mild handicaps and regular students (70% and 51% respectively), $Z = 2.41$, $p = .01$. The effect size was small (.22). There was a wider split in response Item 19, that achievement levels of students with mild disabilities would increase if they were placed full time in the regular classroom (22% of principals disagreed compared to 66% of teachers), $Z = 3.69$, $p = .0002$. The effect size was medium (.34). Finally, both principals and special education teachers were on average neutral to Item 18, that the time devoted to state/district curriculum goals would decrease if students

with mild handicaps were placed full time in the regular classroom (55% and 56% respectively). On this item there was no statistical significance between group means.

A multivariate discriminant function analysis was used to show predictive ability of items on group membership. The canonical correlation of .52 suggested statistically significant relationships between attitudes of principals and special education teachers on the seven items, $\Lambda = .72$, $\chi^2(7) = 33.90$, $p < .0001$. Correlations were indicated at $r > .50$ between Item 20, ($r = .71$), Item 19, ($r = .56$), and Item 11, ($r = -.55$). The discriminant function correctly classified 76.11% of all respondents (69.48% of principals and 81.25% of special education teachers).

The investigators found that special education teachers and principals held significant differences in their attitudes about inclusion. Principals were more optimistic than special education teachers that students with mild cognitive disabilities, when placed in a general education setting (Item 19) with consultative services (Item 20), improved in their academic achievement. Further, while principals were proponents of the efficacy and outcomes of inclusion for students with disabilities, they did not agree as strongly as special education teachers that resources needed to be protected (Item 11). The authors offered that this was potentially a cost-savings measure by principals for providing inclusion services without accessing the direct support for special education teachers. This was problematic for special education teachers. On the whole, the authors noted that special education teachers held positive attitudes about the desirability of inclusion but were less hopeful than principals about the feasibility of inclusion in practice.

The authors point out that principals' positive attitudes towards inclusion influence if and how a school adopts inclusion policies and practices although they do not guarantee the success of students. In fact, empirical evidence indicates otherwise (Cook

et al., 1999). Special education teachers, as the experts in the provision of instruction to students with disabilities, may be cautious that inclusion may result in less direct and appropriate services to students with mild disabilities. It is argued in this study, that principals, although positive in their support for inclusion, may run into problems implementing a successful inclusion program with teacher buy-in and measurable student outcomes. This study makes an important contribution to the body of research on leadership for special education in that it elucidates discrepancies between principal intent to create inclusive instructional opportunities and operationalized follow through. The authors note the need to improve principal effectiveness in instruction for student with disabilities pre-professional training and on-going professional development opportunities. Not noted in the authors' conclusion but also necessary is research to operationalize the definition of inclusion and measure its impact on student achievement.

Synthesis

These studies were selected to examine how instructional leadership for special education occurs in schools. Collectively, these studies suggest that principals lack preparation and professional development in leadership for special education, and that their foundational knowledge of special education (knowledge related to federal laws) is more developed than their contextual knowledge (knowledge related to creating conditions for growth in students with disabilities). Using the three dimensions of instructional leadership articulated by Hallinger and Heck (2011) – defining school mission, managing the instructional program, and promoting a school learning climate – each study provides some insight into the current work of the principal as the instructional leader for special education.

Defining School Mission

Two studies had at least partial focus on the principal's role in creating and articulating school mission and goals.

The Cook et al. (1999) study indicated that principals perceived themselves as supporting and communicating a vision and pathway for the inclusion of students with disabilities in general education classrooms. Their special education teachers similarly perceived their principals as articulating the mission of inclusion, but they were less optimistic about principals' ability create a feasible plan for inclusion that still met students' instructional needs.

Wakeman et al. (2006) showed that principals overwhelmingly reported supporting the equitable education of all students regardless of diversity (race, SES, and ability). While principals reported having fundamental knowledge of student disability categories and the push for inclusivity in general learning environments, they reported having less knowledge of current issues, which pertain to important instructional strategies for students with disabilities (self-determination, functional behavior assessments, program evaluations, and differentiated instruction).

Consistent with effective leadership theory, principal optimism is important in leading a school through educational reform, such as with the debated issue of inclusion and the provision of equitable education for marginalized groups. The authors argue, however, that principals require, but often lack, a deeper level of understanding of effective instruction and evidence-based practices to know how to operationalize their vision and evaluate effectiveness for students and teachers.

Managing the Instructional Program

Two of the studies provide some illumination on the management of instructional

program as an instructional leadership dimension.

The Frost and Kersten (2015) study suggested that principals view themselves applying foundational knowledge of special education through their participation in activities such as IEP meetings, managing special education teacher workloads, conducting teacher evaluations, and outreach to families of children with disabilities. Principals rated their contextual knowledge of special education lower than their foundational knowledge (although still in the average range). These principal activities include building general education and special education staff collegiality, implementing program improvement for special education, informal visits to special education classrooms, attending special education meetings to discuss concerns, and monitoring special education curriculum. Using the lens of Hallinger and Heck (2011), this study might suggest that principals feel more prepared to manage the instructional curriculum than to promote a positive school learning climate for special education.

The McHatton et al. (2010) study looked at the preparation, daily practices, and self-efficacy of principals in their involvement with special education. Principals reported a lack of training related to special education from both their administrative preparation programs and in their ongoing district professional development. Interestingly, principals reported frequent involvement with special education activities, such as IEP meetings, and positive perceptions of self-efficacy in handling daily school issues related to special education although less so in legal and funding areas.

Promoting a Positive School Learning Climate

The Bays and Crockett (2007) study suggested that principals see themselves in the role as instructional leaders in theory yet feel lacking in specialized knowledge related to specially designed instruction and the ability to effectively evaluate special

education teachers. The study highlights a tendency to disperse instructional management to those with more specialized knowledge about special education.

Conclusion

To serve as a basis for the study, this literature review focused on the historical development of leadership theories, instructional leadership as a valid model for school improvement, and the foundations of special education and implications for principal leadership.

Principals have a critical role in creating and maintaining effective school programs for all children, regardless of their needs. Principal leadership is key in school improvement efforts that impact general education and special education. Yet, principals are challenged with gaining instructional leadership skills that promote the improvement of teaching and learning for students with disabilities. Given the complexities of today's educational system, it is imperative that school leaders be skilled in balancing competing demands that emerge from the challenge to meet the best interests of individual students as well as the best interests of all students (Frick et al., 2013).

Chapter Three: Method

Introduction

The purpose of this study was to analyze the role of the principal as instructional leader as it pertains to special education. Specifically, this investigation compares the perceptions of principals and special education teachers related to characteristics of instructional leadership demonstrated by principals at the elementary level. This chapter contains the methodology for this investigation, including the participants, instrumentation, research design, and data analysis.

Research Design

The broad question underlying this study is "What instructional leadership behaviors are deemed important for leading special education programs and services?" To get at these questions, data was collected on the following research questions, three of which justified hypotheses:

Question 1. What are elementary principal perceptions of their instructional leadership practices for special education programs and services?

Question 2. What are elementary special education teacher perceptions of principal instructional leadership practices for special education programs and services?

Question 3. Is there a significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services?

H_0: There is no statistically significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services.

H_1: There is a statistically significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services.

Question 4. Do perceptions of principal instructional leadership vary with the implementation of RtI or MTSS in their schools?

H_0: There is no statistically significant difference in perceptions of principal instructional leadership practices based on implementation of RtI or MTSS.

H_1: There is a statistically significant difference in perceptions of principal instructional leadership practices based on implementation of RtI or MTSS.

Question 5. Is there an interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership?

H_0: There is no statistically significant interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership.

H_1: There is a statistically significant interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership.

The research questions warranted research design methods that included descriptive and causal comparison approaches.

Participants

A purposive sample was utilized in this study and all Washington State public-school elementary principals, assistant principals, and special education teachers were invited to participate. Washington State has 1,350 public elementary schools serving

varying grades ranging from Preschool through 6th grade. Schools that combined Kindergarten through 8th grade levels were given the opportunity to participate in this study. The list of potential participants was generated from a comprehensive directory of school district information, called the *Washington Education Guide,* and from school websites. In sum, 1,011 principals (N = 1,011), 518 assistant principals (N = 518), and 1,470 special education teachers (N = 1,470) were asked to participate in the study.

The State of Washington is comprised of 295 school districts, with the largest district serving over 55,000 students and the smallest district serving 10 students. Student diversity demographics for all Kindergarten through 12th grade schools included White (52.6%), Hispanic/Latino (24%), Two or More Races (8.6%), Asian (8%), Black/African American (4.4%), American Indian/Alaskan Native (1.3%), and Native Hawaiian/Other Pacific Islander (1.2%). Program diversity demographics for the State included 45.3% low income, 11.7% English Language Learners and 14.4% Special Education (Office of the Superintendent of Public Instruction [OSPI], 2020).

Procedure

After receipt of approval from the Seattle Pacific University Institution Review Board (Appendix A), the investigator sent a series of email communication two groups of invited participants, the principals, and the special education teachers (Appendix B). Assistant principals were considered part of the principal group, as they often assume leadership responsibility for supervision of special education programs (Bays & Crockett, 2007; Bellamy et al., 2014). The first email was informational and included the purpose of this study and a request for participation; a second email followed two days later, which included the Letter of Informed Consent and link to the electronic survey; two reminder emails followed on the sixth and thirteenth day of the survey window; and a

final email was sent on the last day, which notified participants of the survey closure and stated the investigator's appreciation for their participation. Confidentiality of responses was assured in the introductory and reminder emails; however, anonymity of school identity could not be assured as it was included as demographic information in the survey instrument as determined by the survey developer (Hallinger, 1983). School identity was not used in statistical analysis, research findings or discussion. The window for participation in the electronic survey was February 12, 2020 through February 25, 2020.

Instrument

An electronic survey instrument was utilized for this study and sent in two forms, a version for principals and assistant principals, and one for special education teachers. The survey included two sections: (1) demographic information, and (2) 50 survey questions related to the instructional leadership behaviors of principals from the perspective of the reporter. An electronic survey was determined the preferred method of data collection due to the efficiency it affords the researcher in collecting and analyzing a large amount of information from participants in a short period of time and for cost effectiveness (Trochim & Donnelly, 2008).

Relevant demographic information was collected about each school including the urban, suburban, or rural location of the school, student population, number of years in which RtI or MTSS has been implemented in the school. Demographic characteristics were obtained from the participants including gender and years of experience in role.

The instrument utilized to survey instructional leadership characteristics of principals was the Principal Instructional Management Rating Scale (PIMRS; Hallinger, 1983) with permission from the author and publisher (Appendix C). This survey questionnaire was selected because it focused on specific behaviors related to

instructional leadership and due to its widespread use by researchers to study instructional leadership behaviors of principals in the United States and internationally (Hallinger & Heck, 1996, 2011; Hallinger & Wang, 2015). The PIMRS instrument has been reported in over 250 studies between 1983 and 2015 (Hallinger & Heck, 2015). A description of the PIMRS follows.

Hallinger developed the PIMRS questionnaire to assess the principal's role as instructional leader. The role analysis was based on theory and research in the 1980s on instructional leadership, instructionally effective schools, and organizational leadership (Hallinger & Wang, 2015). From the literature, Hallinger identified three dimensions of instructional leadership: *Defining School's Mission*, *Managing the Instructional Program*, and *Promoting a Positive School Learning Climate* (Hallinger, 1983). These three dimensions were comprised of 11 role functions, later reduced to 10 functions. Informed by the school administration expert opinions and current literature, Hallinger generated 71 discrete behaviors to fit the job functions. These items were reduced and rewritten as 50 scale items. For each item, responders rated the frequency of instructional leadership behaviors using a 5-point Likert-type scale from (1) Almost Never to (5) Almost Always. With permission from Dr. Hallinger, a word change was made on item 28 to reflect current language usage.

Reliability and Validity

The initial validation study assessed the PIMRS' reliability and validity. To measure reliability, the PIMRS Teacher Form was used to collect data from 104 teachers in 10 elementary schools in a California school district. Reliability was measured using Cronbach's alpha, which resulted in 10 of 11 functions or subscales exceeding the recommended reliability standard of 0.80 (DeVellis, 2012). The alpha coefficients ranged

from 0.78 for *Provides Incentives for Teachers* to a high of .90 on three subscales, *Supervises and Evaluates Instruction*, *Coordinates Curriculum*, and *Monitors Student Progress*. Reliability estimates are shown in Table 1.

Table 1

Reliability Estimates from Original PIMRS

Function	Subscale	Reliability	*N*
1	Frames school goals	0.89	77
2	Communicates school goals	0.89	70
3	Supervises and evaluates instruction	0.90	61
4	Coordinates curriculum	0.90	53
5	Monitors student progress	0.90	52
6	Protects instructional time	0.84	70
7	Maintains high visibility	0.81	69
8	Provides incentives for teachers	0.78	70
9	Promotes professional development	0.86	58
10	Provides incentives for learning	0.87	61
11	Maintains high academic standards	0.83	76

The author noted a potential violation of an assumption of Cronbach's alpha for the Teacher Form, as it "treats each teacher's responses independently. That is, the formula aggregates the total sample of teachers from different schools into a single group in order to assess internal consistency, rather than reflecting teacher groupings within schools, each individual and group assessing their own principal (Hallinger & Wang, 2015). Further tests were subsequently used to confirm internal consistency using

Cronbach's alpha for the Principal Form, and the Generalizability Theory Test of Internal Consistency (Gen Theory) for the Teacher Form, which accounts for teacher ratings of their specific principal and measures variance using a split-plot design (Hallinger & Wang, 2015).

Between 2008 and 2012, Hallinger employed meta-analyses to extract secondary data from previous studies to further test for reliability of the PIMRS. Additionally, he collected current data from 25 original studies using the PIMRS where item-level or raw data was accessible. In all, he used 52 sets of data from 43 independent studies, 19 of which used the Principal Form and 33 of which used the Teacher Form. Principal data was extracted from 19 of the studies, 16 of which were used, with an overall sample size of 2,508 principals. Using Cronbach's alpha, the whole-scale alpha was 0.96. Reliability estimates by domain were as follows: *Defines School Mission* (0.88), *Manages the Instructional Program* (0.93), and *Develops a Positive School Learning Climate* (0.93). The 10 instructional leadership functions estimates were lower, ranging from a low of 0.74 on *Creates Incentives for Teachers* to a high of 0.85 for *Frames the School Goals*. These estimates are sufficient for use of the PIMRS Principal Form in research.

On the PIMRS Teacher Form, raw data was collected from 33 independent studies conducted between 2000 and 2012, each author having utilized Cronbach's alpha, Ebel's test, or the Gen Theory. Using meta-analyses, the Gen Theory was used to measure reliability on 11 data sets with an overall sample size of 2,313 teachers. The test yielded full scale reliability of 0.99. Estimates by domain were *Defines School Mission* (0.97), *Manages the Instructional Program* (0.98), and *Develops a Positive School Learning Climate* (0.98). Estimates for the 10 instructional leadership functions ranged from a low of 0.90 on *Maintains High Visibility* to a high of 0.95 on several functions.

Overall reliability was measured using Cronbach's alpha and Generalizable Theory of Internal Consistency. The results predictably yielded higher coefficients using the Generalizable Theory than Cronbach's alpha when applied to the same data (Hallinger & Wang, 2015). These estimates indicate that the PIMRS Teacher Form as an instrument yielding reliable data is sufficient for research.

The original validation study tested the PIMRS for face validity, content validity, and discriminant validity, and was initially determined to be valid at the elementary level (Hallinger, 1983). Internal validity of the PIMRS was more recently assessed using data from studies conducted between 2008 and 2012 using five approaches: subscale content validation, school document analysis, subscale inter-correlation, construct validity, and differential item function (Hallinger & Wang, 2015). Content validity was measured using four experienced school administrators who were familiar with instructional leadership functions of school principals. These judges were asked to assign 93 PIMRS items into 1 of 11 categorical functions or leave the item unassigned if deemed that it did not fit. The result was the reduction of items to 71. The 11 functions were then assigned to three dimensions with full agreement by the administrators. For the document analysis, several types of school documents that related to the instructional leadership functions were analyzed, such as school handbooks, principal newsletters, staff bulletins, meeting agendas and notes, principal's evaluations of teachers, school site council minutes, and school goal statements. The author rated the principal's instructional leadership behaviors from 1 to 5 as evidenced in these artifacts. These scores were compared to teacher ratings using the PIMRS Teacher Form and rank ordered based on degree of fit. The degree of fit between the two sets of ratings varied across subscales, with more consistent ratings among the top one-third ranked principals and in the subscales *Frames School Goals*,

Supports and Evaluates Instruction, and *Provides Incentives for Learning*. There were consistent ratings for the top and bottom one-third of ranked principals in the subscales *Communicates School Goals* and *Monitors School Progress*.

Construct validity was assessed by comparing the intercorrelation between each pair of subscales and the reliability coefficient of each subscale. In theory, if the subscale represents a discrete job function then intercorrelations "should be lower than the subscale reliability coefficient" (Hallinger & Wang, 2015, p. 94). In the original validation study, all intercorrelation coefficients were smaller than the subscale reliability coefficients. Several intercorrelation coefficients were above 0.60 in both the principal and teacher data and statistically significant at the 0.01 level, suggesting that several of the job functions were closely related and not the result of chance. The author concluded that the subscales were measuring "conceptually related but distinct components of instructional leadership" (Hallinger & Wang, 2015, p. 94).

The Rasch modeling assessment was also used to measure construct validity of the PIMRS. The Rasch provides an item-by-item analysis for quality of fit with the construct or latent trait represented by the outfit mean square (outfit MNSQ). The outfit MNSQ measures the fit of the observed data to the expectation of the Rasch model, with good fit represented by the value 1. Data was used from 329 elementary principals and 320 secondary principals. For the instructional leadership dimensions *Defines the School Mission* and *Manages the Instructional Program*, the outfit MNSQ fell in the ranges of 0.6 to 1.4, suggesting a good fit (Hallinger & Wang, 2015). Item test correlations were above 0.5 for all items. For the dimension *Develops a Positive School Learning Climate*, 2 of the 25 items did not fit the model well with outfit MNSQs of 1.48 and 2.09 respectively. The author suggested that the reason for poor fit of these two items, "Tutor

students or provide direct instruction to classes" and "Cover classes for teachers until a late or substitute teacher arrives" was likely due to the infrequency of the behaviors. The author retained the items in the PIMRS.

Part of the Rasch analysis included a differential item function (DIF) analysis. The DIF assesses whether items function in a stable fashion across identical sub-groups of a population, such as school level, school location, or level of principal experience. As a result of past and current research findings, the PIMRS is considered by the developer to be a valid and reliable instrument for measuring instructional leadership (Hallinger, 1983; Hallinger & Wang, 2015).

Data Analysis

The data analyses included descriptive and causal comparison approaches. Specifically, procedures for three data analyses were selected in answering the five research questions. Descriptive analyses were utilized to explore the first two research questions, *"*What are elementary principal perceptions of their instructional leadership practices for special education programs and services?" and "What are elementary special education teacher perceptions of principal instructional leadership practices for special education programs and services?" No hypotheses were formulated for these questions as the intent was to collect numerical summaries of perceptual data from the principal and special education teacher groups. A descriptive summary of each group's perceptions of principal instructional leadership included measures of central tendency and variability, specifically the means and standard deviations across the three PIMRS domains, *Defines School Mission*, *Manages the Instructional Program*, and *Develops a Positive School Learning Climate,* and across the 10 job functions that fall within these domains.

Inferential statistics were warranted for research questions 3, 4, and 5 to explore differences between groups on the dependent variables after an action or event has already occurred. The researcher's goal is to determine whether the independent variable(s) affected the dependent variables, by comparing two or more groups of individuals (Salkind, 2010).

Before addressing question 3, the investigator checked whether necessary assumptions were met for MANOVA. For MANOVA, these assumptions include: (a) observations from random and independent sample populations; (b) dependent variables with interval measurements; (c) multivariate normality; and (d) equal covariance for each group. Although there was concern with normality of the data based on unequal group sizes (principals < special education teachers), which will be addressed in Chapter Four, there was justification to continue with statistical analyses for questions 3, 4, and 5.

Multivariate analysis of variance (MANOVA) was implemented to investigate the third research question, "Is there a significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services?" MANOVA tests whether mean differences among groups on a combination of dependent variables (DVs) are likely to have occurred by chance (Tabachnick & Fidell, 2013). An advantage of using MANOVA over a series of analyses of variance (ANOVAs) when there are several DVs is the reduced possibility of a Type I error due to multiple tests of DVs (Tabachnick & Fidell, 2013). The IV is group (principal or special education teacher) and the DVs are measures of instructional leadership across the 3 domains *Defines School Mission, Manages the Instructional Program*, and *Develops a Positive School Learning Climate*, and 10 job functions. A non-directional hypothesis for question 3 was formulated.

A factorial design was used to investigate the fourth and fifth research questions, "Do perceptions of principal instructional leadership vary with the implementation of RtI or MTSS in their schools?" and "Is there an interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership?"

Factorial design may be used when dependent variables are measured across two or more independent variables, each IV with two or more levels. This creates multiple conditions where statistically significant main effects and interaction effects can be measured (Ravid, 2011). A main effect is an outcome that shows a statistically significant difference between levels of the IV. An interaction effect exists when differences on one independent variable depend on the level of another independent variable. In this factorial design, the investigator looked simultaneously for main effects based on levels of group (principal and special education teachers) and levels of implementation of RtI or MTSS on instructional leadership perceptions. An interaction of these factors was further explored to determine whether the levels of group had a statistically significant effect on the instructional leadership when combined with one or more levels of RtI or MTSS implementation.

In Questions 4 and 5, the researcher sought to determine if the effect of level of implementation of RtI or MTSS on principal instructional leadership varied by group (principal and special education teacher). Two 2 x 4 MANOVAs were utilized to test whether the main effects of principal and special education teacher perceptions of principal instructional leadership varied depending on the number of years RtI or MTSS had been implemented in their schools. The first 2 x 4 MANOVA identified the DVs as the three instructional leadership domains, and the DVs in the second 2 x 4 MANOVA

were the 10 instructional leadership functions. RtI or MTSS implementation was categorized in four levels: 0 years (not implemented), 1-5 years, 6-10 years, and 10+ years. The four levels were determined by the investigator based on RtI or MTSS implementation guidelines which suggest a multi-year process to create, implement, evaluate, and adjust the framework for a multi-tiered student support system (Center on Response to Intervention, 2019). Non-directional hypotheses for questions 4 and 5 were tested at an alpha level of .05.

Factorial MANOVA generates multiple *F*-test statistics, for each main effect and each interaction effect (Tabachnick & Fidell, 2013). For Questions 4 and 5, an *F*-test was generated for the main effect of implementation of RtI or MTSS, and the interaction effect group type x implementation level on the DVs of instructional leadership domain and instructional leadership functions. A significant *F*-test indicates that a difference occurred but does not show where. Post hoc analyses were utilized to determine where differences existed among levels of implementation of RtI or MTSS.

The results of the data analyses for the five research questions and three hypotheses are reported in Chapter Four.

Chapter Four: Results

The purpose of this study was to investigate the levels of principal instructional leadership practiced by principals for special education programs and students with disabilities. The Principal Instructional Management Rating Scale (PIMRS; Hallinger, 1983) was used to gather observations of principal instructional leadership from the perspectives of principals (including assistant principals) and special education teachers across 3 domains and 10 functions of instructional leadership. The first domain, *Defines School Mission* is comprised of functions *Frames School Go*als and *Communicates School Goals*. The next domain, *Manages the Instructional Program* includes the functions *Supervises and Evaluates Instruction*; *Coordinates Curriculum*; and *Monitors Student Progress*. The last domain, *Develops a Positive Learning Climate,* includes the functions *Protects Instructional Time*; *Maintains High Visibility*; *Provides Incentives for Teachers*; *Promotes Professional Development*; and *Provides Incentives for Learning*.

Data were collected from two versions of the PIMRS. Elementary principals and assistant principals completed the principal form, and special education teachers completed the teacher form. Responses to the PIMRS are in Likert-type format ranging from 1 (Almost Never) to 5 (Almost Always). The data were analyzed in order to answer the following research questions:

Question 1. What are elementary principal perceptions of their instructional leadership practices for special education programs and services?

Question 2. What are elementary special education teacher perceptions of principal instructional leadership practices for special education programs and services?

Question 3. Is there a significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services?

H_0: There is no statistically significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services.

H_1: There is a statistically significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services.

Question 4. Do perceptions of principal instructional leadership vary with the implementation of RtI or MTSS in their schools?

H_0: There is no statistically significant difference in perceptions of principal instructional leadership practices based on implementation of RtI or MTSS.

H_1: There is a statistically significant difference in perceptions of principal instructional leadership practices based on implementation of RtI or MTSS.

Question 5. Is there an interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership?

H_0: There is no statistically significant interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership.

H_1: There is a statistically significant interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership.

Different statistical procedures were conducted to answer the research questions including descriptive and inferential analyses. Specifically, three statistical tests were employed including descriptive, MANOVA, and factorial MANOVA to answer the five research questions and three hypotheses as described below.

Sample

Table 2 presents the final overall sample size comprised of 112 elementary principals and assistant principals and 214 elementary special education teachers, yielding 7.3% and 14.56% response rates respectively. Outlier responses, identified through boxplots, were eliminated from analyses. Response rates are a potential source of bias. Nonresponse rates bring into question adequate representation of the sampling frame and nonresponse bias (Fowler, 2009). The inaccessibility of two large urban school districts impacted response rate. Further, the study design which included teacher evaluations of principal leadership may have been a deterrent to participation. While the response rate was not as high as hoped for, the responses collected for each group are considered large ($n > 100$) and adequate for statistical analyses (Ravid, 2011), although generalizability of findings is cautioned.

Table 2

Study Participants

Principal Group		Teacher Group
$n = 112$		$n = 214$
Principal	Assistant Principal	Special Education Teacher
$n = 89$	$n = 23$	$n = 214$

Statistical Analyses of Research Questions

Different analytical approaches were required to answer the five research questions proposed in this study: (a) descriptive statistics, (b) multivariate analysis of variance (MANOVA), and (c) factorial multivariate analysis of variance (factorial MANOVA). For all statistical tests, an alpha level of .05 was selected as the measure of statistical significance.

Statistical Results of Research Questions 1 and 2

Question 1. What are elementary principal perceptions of their instructional leadership practices for special education programs and services?

Question 2. What are elementary special education teacher perceptions of principal instructional leadership practices for special education programs and services?

The responses of elementary principal and assistant principal participants (n = 112) and elementary special education teachers (n = 214) were analyzed through descriptive statistics to determine the mean and standard deviation across the 3 instructional leadership domains and 10 functions and are shown in Table 3.

Table 3

Means, Standard Deviations, and Variance for PIMRS Domains and Functions

Domain and Function	Principal		Special Ed Teacher	
	M	*SD*	*M*	*SD*
Defines School Mission	**3.94**	**.45**	**3.85**	**.71**
Frames School Goals	4.40	.48	4.14	.69
Communicates School Goals	3.50	.55	3.67	.80
Manages the Instructional Program	**3.80**	**.49**	**3.58**	**.79**
Supervises and Evaluates Instruction	4.16	.50	3.80	.80
Coordinates Curriculum	3.70	.71	3.6	.90
Monitors Student Progress	3.55	.62	3.56	.80
Promotes a Positive School Climate	**3.66**	**.40**	**3.46**	**.78**
Protects Instructional Time	3.72	.51	3.81	.77
Maintains High Visibility	3.67	.57	3.34	.93
Provides Incentives for Teachers	3.28	.60	3.16	.98
Promotes Professional Development	4.22	.49	3.86	.78
Provides Incentives for Learning	3.40	.75	3.45	1.04

Defines School Mission. Principal reporting trends on the PIMRS Principal Form indicated positive scores across all instructional leadership domains and functions with no mean scores below 3.0. The overall principal mean score for *Defines School Mission* was 3.94 (*SD* = .45). The principal behavior in this domain with the higher mean score was in the area of *Frames School Goals* (*M* = 4.40, *SD* = .48) and the lower mean score was in *Communicates School Goals* (*M* = 3.50, *SD* = .55).

The distribution of scores on the PIMRS Teacher Form reflects lower mean scores than those on the PIMRS Principal Form, with individual mean scores ranging from 1.6 to 5.0. The overall special education teacher mean score for *Defines School Mission* was 3.85 (*SD* = .71). Special education teachers rated principal behaviors higher in *Frames School Goals* (*M*= 4.14, *SD* = .69) than in *Communicates School Goals* (*M*= 3.67, *SD* = .80).

Manages the Instructional Program. Principals' overall mean score in this domain was 3.80 (*SD* = .49). Three functions make up this dimension of instructional leadership, and mean scores are presented from the highest rated behavior to the lowest: (a) *Supervises and Evaluates Instruction* (*M* = 4.16, *SD* = .50), (b) *Coordinates Curriculum* (*M* = 3.70, *SD* = .71), and (c) *Monitors Student Progress* (*M* = 3.55, *SD* = .62).

Special education teachers' overall mean score for this dimension was 3.58 (*SD* = .79). The order of reported mean scores on the three functions that comprise the domain, *Manages the Instructional Program*, was the same as reported for principals: (a) *Supervises and Evaluates Instruction* (*M* = 3.40, *SD* = .80); (b) *Coordinates Curriculum* (*M* = 3.60, *SD* = .90), and (c) *Monitors Student Progress* (*M* = 3.56, *SD* = .80).

Promotes a Positive School Climate. Principals reported an overall mean score in *Promotes a Positive School Climate* of 3.66 (*SD* = .40). The five functions which comprise this dimension are reported from highest to lowest of principal means scores: (a) *Promotes Professional Development* (*M* = 4.22, *SD* = .49), (b) *Protects Instructional Time* (*M* = 3.72, *SD* = .51), (c) *Maintains High Visibility* (*M* = 3.67, *SD* = .57), (d) *Provides Incentives for Learning* (*M* = 3.40, *SD* = .75), and (e) *Provides Incentives for Teachers* (*M* = 3.28, *SD* = .60).

The overall mean score reported by special education teachers was 3.46 (*SD* = .78). Their mean scores for each function within this domain were ordered as follows from highest to lowest: (a) *Promotes Professional Development* (*M* = 3.86, *SD* = .78), (b) *Protects Instructional Time* (*M* = 3.81, *SD* = .77), (c) *Provides Incentives for Learning* (*M* = 3.45, *SD* = 1.04), (d) *Maintains High Visibility* (*M* = 3.34, *SD* = .93), and (e) *Provides Incentives for Teachers* (*M* = 3.16, *SD* = .98).

Statistical Results of Research Question 3

Question 3. Is there a significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services?

H_0: There is no statistically significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services.

H_1: There is a statistically significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services.

This research question was investigated through the use of MANOVA which allowed the researcher to determine if statistically significant differences existed in principal instructional leadership based on group type. The dependent variables were defined as the 3 domains and 10 functions of instructional leadership defined by Hallinger (1983). The independent variable was group, with two types, principal (consisting of principals and assistant principals) and special education teachers.

The researcher first checked whether the assumptions were met for MANOVA. Random sampling is utilized when possible in empirical research; however, to meet the

aims of this study the researcher utilized a purposive sample with predetermined independent groups (Trochim & Donnelly, 2008). The survey instrument used in this study included Likert-type scores with responses ranging from 1 (Almost Never) to 5 (Almost Always). A middle score of 3 was defined as Sometimes. Researchers debate whether Likert-type responses should be used as ordinal or interval data in quantitative studies. Both ordinal and interval responses are ordered based on magnitude; however, interval responses assume equal intervals between scores. There is support in social and educational research to consider Likert responses as interval data (Trochim & Donnelly, 2008). Multivariate normality was evaluated using graphical and statistical measures. Histograms indicated that the data were normally distributed with skewness and kurtosis within acceptable ranges (±1.5; Tabachnick & Fidell, 2013; see Appendices D and E, Figures 1-13). Multivariate tests are sensitive to outliers (Tabachnick & Fidell, 2013). A view of boxplots revealed outliers, which were removed from the data.

Box's M test was used to test homogeneity of covariance. The Box's M value of 105.54 was associated with a $p < .001$, which indicates a violation of equality of covariances across groups. Box's M test is debated in research for its susceptibility to deviations from multivariate normality. "…as with any significance test, in large samples Box's M test could be significant even when covariance matrices are relatively similar" (Field, 2013, p. 643). Tabachnick and Fidell (2013) suggest that if the larger samples produce greater variances and covariances, then the probability values will be conservative, and significant Box's M test findings can be trusted. Stevens (2002) posits that group variances shown to be within four times each other are acceptable. The sample sizes in this study were unequal with the special education teacher group more than 1.5 times the size of the principal group (see Table 3). Variances across IVs and DVs met

Steven's criteria, with the largest variance being no more than four times that of the corresponding smallest variance (Table 4), suggesting the likelihood of robust multivariate tests. Although the assumption of equal covariance had conflicting interpretations, the researcher proceeded with a MANOVA. Results should be interpreted with caution.

Table 4

Multivariate Analysis Summary Table of Instructional Leadership by Domain

Effect	*df*	*F*	*p*	η^2
Group	3, 322	3.97	.008	.04

Two MANOVAs were conducted with the IV as group with two types, principal and special education teacher. In the first MANOVA, the DVs were identified as the three domains of principal instructional leadership, *Defines School Mission, Manages the Instructional Curriculum,* and *Promotes a Positive School Climate.* In the second MANOVA, the DVs were the ten functions of instructional leadership.

Instructional Leadership Domains. The data were analyzed using MANOVA to determine whether differences exist between perceptions of principals and special education teachers of principal instructional leadership across the three domains, *Defines School Mission, Manages the Instructional Curriculum*, and *Promotes a Positive School Climate*. Tabachnick and Fidell (2013) recommend the use of Pillai's Trace to determine multivariate test significance in samples with larger variances. Using Pillai's Trace, there was a significant effect of group on perceptions of principal instructional leadership, $F(3, 322) = 3.97$, $p < .05$, $\eta^2 = .04$. The multivariate effect size of .04 suggests that 4% of

variance detected in the principal leadership domains was accounted for by group level. This is considered a small effect size. Separate analyses of variance (ANOVAs) on the three domains of instructional leadership (DVs) revealed significant effects of group type on *Manages the Instructional Curriculum*, $F(1, 324) = 7.81$, $p < .05$, $\eta^2 = .02$, and *Promotes a Positive School Climate*, $F(1, 324) = 6.34$, $p < .05$, $\eta^2 = .02$. The effect sizes are considered small (Pallant, 2013). Table 5 provides a summary of results. As a result, data support the rejection of the null hypothesis for Question 3 when using the Instructional Leadership domains as dependent variables.

Table 5

Analysis of Variance Summary Table by Domain

Effect	DV	*df*	*F*	*p*	η^2
Group	Defines School Mission	1,324	1.29	.258	.00
	Manages Instructional Curriculum	1,324	7.81	.006	.02
	Promotes Positive School Climate	1,324	6.34	.012	.02

Instructional Leadership Functions. MANOVA was next used to test differences in the perceptions of principals and special education teachers across the 10 job functions of instructional leadership. *Frames School Goals* and *Communicates School Goals* fall within the domain of *Defines School Mission. Supervises and Evaluates Instruction, Coordinates Curriculum,* and *Monitors Student Progress* are part of *Manages the Instructional Curriculum.* The domain *Promotes a Positive School Climate* includes the functions, *Protects Instructional Time, Maintains High Visibility, Provides Incentives for Teachers, Promotes Professional Development,* and *Provides Incentives for Learning.*

Results from the MANOVA using Pillai's Trace, showed a statistically significant difference between group perceptions and instructional leadership functions, $F(10, 295) = 10.73$, $p < .05$, $\eta^2 = .27$. The multivariate test of effect size indicates that 27% of variance found in principal leadership functions, or job specific behaviors was accounted for by group type. This is a large effect size (Pallant, 2013). Table 6 provides a summary of these results.

Table 6

Multivariate Analysis Summary Table of Instructional Leadership by Function

Effect	*df*	*F*	*p*	η^2
Group	10, 295	10.73	.000	.27

Separate ANOVAs of each of the10 principal leadership functions revealed statistically significant effects of group type on four principal behaviors, *Frames School Goals*, $F(1, 304) = 11.81$, $p < .05$, $\eta^2 = .04$, *Supervises and Evaluates Instruction*, $F(1, 304) = 18.61$, $p < .05$, $\eta^2 = .06$, *Maintains High Visibility*, $F(1, 304) = 11.40$, $p < .05$, $\eta^2 = .04$, and *Promotes Professional Development*, $F(1, 304) = 19.51$, $p < .05$, $\eta^2 = .06$. The effect sizes for *Supervises and Evaluates Instruction* and *Maintains High Visibility* are considered medium, while the others are small. Table 7 provides a summary of results. The data support the rejection of the null hypothesis for Question 3 when using the Instructional Leadership functions as dependent variables.

Table 7

Analysis of Variance Summary Table by Function

Effect	DV	*df*	*F*	*p*	η^2
Group	Frames School Goals	1, 304	11.81	.001	.04
	Communicates School Goals	1, 304	3.69	.056	.01
	Supervises and Evaluates Instruction	1, 304	18.61	.000	.06
	Coordinates Curriculum	1, 304	1.19	.277	.00
	Monitors Student Progress	1, 304	.01	.915	.00
	Protects Instructional Time	1, 304	1.19	.275	.00
	Maintains High Visibility	1, 304	11.40	.001	.04
	Provides Incentives for Teachers	1, 304	1.27	.261	.00
	Promotes Professional Development	1, 304	19.51	.000	.06
	Provides Incentives for Learning	1, 304	.17	.681	.00

Note: All function variables reported.

Statistical Results of Research Questions 4 and 5

Question 4. Do perceptions of principal instructional leadership vary with the implementation of RtI or MTSS in their schools?

H_0: There is no statistically significant difference in perceptions of principal instructional leadership practices based on implementation of RtI or MTSS.

H_1: There is a statistically significant difference in perceptions of principal instructional leadership practices based on implementation of RtI or MTSS.

Question 5. Is there an interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership?

H_0: There is no statistically significant interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership.

H_1: There is a statistically significant interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership.

The researcher conducted two 2 x 4 MANOVAs to evaluate the relationship between group type (principal, special education teacher) and implementation of RtI or MTSS with four levels on perceived instructional leadership: 0 years (n = 30); 1-5 years (n = 181); 6-10 years (n = 75); and over 10 years (n = 34). The DVs in the first 2 x 4 MANOVA were the three instructional leadership domains, *Defines School Mission, Manages the Instructional Curriculum,* and *Promotes a Positive School Climate.* For the second 2 x 4 MANOVA, the 10 leadership functions were the DVs (see Table 7 for a list of functions).

Assumptions for the first factorial MANOVA were met based on independent groups (principals and teachers), the measurement of the dependent variable (instructional leadership) on an interval scale, and normal distributions of group response variables viewed through Histograms (see Appendix D, Figures 1-3). In this study, overall sample sizes were large for each group with 112 principals (n = 112) and 208

special education teachers (n = 208). Ravid (2011) noted that MANOVA is robust against minor violations of normality. The number of responses in each of the four levels of RtI or MTSS implementation ranged from 10 to 114. Levene's Test for Equality of Error Variances was shown to be violated for the three leadership domains: (a) *Defines School Mission* (F = 4.19, p < .05), (b) *Manages the Instructional Curriculum* (F = 4.94, p < .05), and *Promotes a Positive School Climate (F* = 7.96, p < .05). Although homogeneity of variances was violated, when comparing group responses on like items, the largest variance (SD = .91) was no more than four times the size of the smallest variance (SD = .23). Following guidance from statistical research in this area, the researcher decided to proceed with the MANOVAs (Stevens, 2002; Tabachnick & Fidell, 2013).

In the first 2 x 4 MANOVA, the IVs were group (principal, special education teacher) and implementation of RtI or MTSS with four identified levels. The implementation levels were categorized as (a) 0 years (not implemented), (b) 1-5 years, (c) 6-10 years, and (d) 10+ years. The DVs were the three instructional leadership domains, *Defines School Mission, Manages the Instructional Curriculum,* and *Promotes a Positive School Climate.* Using Pillai's Trace, a significant main effect was shown for group type on domains of principal instructional leadership, $F(3, 310) = 3.63$, $p < .05$, $\eta^2 = .03$, but not for Implementation of RtI or MTSS, $F(9, 936) = 1.51$, $p > .05$. There was insufficient evidence to conclude that the perceptions of principals and special education teachers differed based on the implementation of a tiered support system; therefore, the researcher retained the null hypothesis in Question 4 with Instructional Leadership domains as dependent variables.

Separate ANOVAS run on the three domains of instructional leadership revealed significant effects of group type on *Manages the Instructional Curriculum*, $F(7, 312) =$

7.97, $p < .05$, $\eta^2 = .026$, and *Promotes a Positive School Climate, F*(7, 312) = 6.31, $p < .05$, $\eta^2 = .02$. The effects sizes are interpreted as small. Post hoc testing was not conducted as the group contained less than three levels.

No interaction effects were found between group and implementation of RtI or MTSS, *F*(9, 936) = .701, $p > .05$. The researcher failed to reject the null hypothesis for Question 5 when using the Instructional Leadership domains as dependent variables. See Table 8 for a summary of the main effects and interaction effects.

Table 8

Factorial Analysis of Variance Summary for Group, Implementation of RtI or MTSS, and Group x Implementation for Domains of Instructional Leadership

Effects	*df*	*F*	*p*	η^2
1. Group (Principal, Special Education Teacher)	3, 310	3.63	.013	.03
2. Implementation of RtI or MTSS (0, 1-5, 6-10, 10+ years)	9, 936	1.51	.140	.01
3. Group x Implementation	9, 936	.70	.71	.01

The second 2 x 4 MANOVA tested how group and implementation of RtI or MTSS interact to describe the variance in perceptions of principal leadership in more specific leadership areas. The DVs were the 10 principal instructional leadership functions or behaviors, *Frames School Goals, Communicates School Goals, Supervises and Evaluates Instruction, Coordinates Curriculum, Monitors Student Progress, Protects Instructional Time, Maintains High Visibility, Provides Incentives for Teachers, Promotes Professional Development,* and *Provides Incentives for Learning*.

Assumptions for the second factorial MANOVA were met for independent groups as there was distinct membership for each group, interval scales were used to measure the dependent variables and normal distributions were viewed through Histograms (see Appendix E, Figures 4-13). The IV group consisted of 108 principal respondents (n = 108) and 192 special education teachers (n = 192). The number of responses in each of the four levels of RtI or MTSS implementation ranged from 8 to 106. Box's M test showed statistical significance, $p < .001$, indicating unequal variances across groups. Levene's Test for Equality of Error Variances was shown to be violated in all but one leadership function, *Monitors School Progress* ($F = 1.23$, $p > .05$). When comparing group responses on like items, the largest variance (SD = .76) was no more than four times the size of the smallest variance (SD = .26). The researcher proceeded with the MANOVA (Tabachnick & Fidell, 2013).

The multivariate testing using Pillai's Trace indicated a significant main effect was shown for group type on functions of principal instructional leadership, $F(10, 283) = 8.17$, $p < .05$, $\eta^2 = .22$. The effect size was large (Pallant, 2013). This effect indicates that group role affects perceptions of instructional leadership behaviors differently. Separate ANOVAS of the 10 functions of instructional leadership revealed statistically significant effects of group type on *Frames School Goals*, $F(7, 292) = 13.25$, $p < .05$, $\eta^2 = .04$, and *Supervises and Evaluates Instruction*, $F(7, 292) = 17.32$, $p < .05$, $\eta^2 = .06$, *Maintains High Visibility*, $F(7, 292) = 9.81$, $p < .05$, $\eta^2 = .03$, and *Promotes Professional Development*, $F(7, 292) = 13.16$, $p < .05$, $\eta^2 = .04$. The effects sizes, in the small to medium ranges, suggest that perceptions of these principal behaviors differ by group membership. As a result, data support the rejection of the null hypothesis for the main

effect of group in Question 4 when using the Instructional Leadership functions as dependent variables.

Using Pillai's Trace, a statistically significant main effect was found for implementation of RtI or MTSS across functions of principal leadership, $F(30, 855) = 1.53$, $p < .05$, $\eta^2 = .05$. The data support the rejection of the null hypothesis in Question 4 for the implementation of RtI or MTSS when analyzing Instructional Leadership functions as dependent variables.

Separate ANOVAs indicated a significant effect of implementation of RtI or MTSS on the functions, *Communicates School Goals*, $F(7, 292) = 5.12$, $p < .05$, $\eta^2 = .05$ and *Maintains High Visibility*, $F(7, 292) = 3.39$, $p < .05$, $\eta^2 = .03$. Perceptions of principal instructional leadership as demonstrated by these behaviors are affected by RtI or MTSS, although effect sizes are considered small. Bonferroni post hoc tests revealed that respondents' perceptions of the communication of school goals is significantly lower in schools where there is no implementation of RtI or MTSS compared to schools which have practiced the tiered interventions for 1-5 years or over 10 years, both ps $< .05$. Perceptions that a principal maintains high visibility are significantly greater in schools that have implemented RtI or MTSS for 1-5 years, 6-10 years, or more than 10 years than for those who have no tiered intervention systems, all ps $< .05$.

No significant interaction effects were found between group and implementation of RtI or MTSS that affected principal leadership functions; thus, the null hypothesis was retained for Question 5. See Table 9 for a summary of main effects and interaction effects when the functions of instructional leadership are the dependent variables.

Table 9

Factorial Analysis of Variance Summary Table for Group, Implementation of RtI or MTSS, and Group x Implementation for Functions of Instructional Leadership

Effects	*df*	*F*	*p*	η^2
1. Group	10, 283	8.17	.000	.22
Principal				
Special Education Teacher				
2. Implementation of RtI or MTSS	30, 855	1.53	.034	.05
(0, 1-5, 6-10, 10+ years)				
Communicates School Goals	7, 292	5.12	.002	.05
Maintains High Visibility	7, 292	3.39	.018	.03
3. Group x Implementation	30, 855	1.14	.280	.04

Chapter 5 will provide a discussion of the results of the data analyses reported in this results section.

Chapter 5: Discussion

The purpose of the study was to measure dimensions of instructional leadership for special education to determine if principal behaviors were viewed differently from the perspectives of principals and special education teachers. Specifically, perceptions were compared across 3 domains and 10 functions of the Principal Management Rating Scale (PIMRS). A second focus of the study was to determine whether these perceptions varied based on implementation schoolwide tiered student support systems, commonly called Response to Intervention (RtI) or Multi-Tier Systems of Support (MTSS). The tiered intervention systems were measured according to number of years of implementation in the school.

In this chapter the researcher provides a discussion of the results of the five research questions and four hypotheses presented in this study. Implications of the research findings with connections made to previous research on instructional leadership are discussed. Finally, limitations of the study and recommendations for future research are provided.

Summary of Research Findings

Research Question 1

What are elementary principal perceptions of their instructional leadership practices for special education programs and services?

Results Discussion. No hypothesis was generated for Question 1. Descriptive statistics were utilized to answer this question using the PIMRS Principal survey, which is a self-assessment of instructional leadership. Hallinger and Wang (2015) noted that the PIMRS is not a measurement of effectiveness of principal leadership but rather a measure of the "extent of the principal's engagement in the practices that comprise the

instructional leadership role" (p. 54). Means for instructional leadership were determined for each of the three leadership domains: *Defines School Mission* (*M* = 3.94), *Manages the Instructional Curriculum* (*M* = 3.80), and *Promotes a Positive School Climate* (*M* = 3.66).

Means were generated for the functions comprised under each domain. *Frames School Goals* (*M* = 4.40) and *Communicates School Goals* (*M* = 3.50) fell under *Manages School Mission*. The functions *Supervises and Evaluates Instruction* (*M* = 4.16), *Coordinates Curriculum* (*M* = 3.70), and *Monitors Student Progress* (*M* = 3.55) comprised the *Manages the Instructional Curriculum* domain. *Protects Instructional Time* (*M* = 3.72), *Maintains High Visibility* (*M* = 3.67), *Provides Incentives for Teachers* (*M* = 3.28), *Promotes Professional Development* (*M* = 4.22), and *Provides Incentives for Learning* (*M* = 3.40) were functions measured under the domain *Promotes a Positive School Climate.*

The researcher observed that all means were above a 3.0, which suggests that principals self-report positive instructional leadership behaviors when working with special education programs. Hallinger and Wang (2015) noted that mean scores of 4.0 and above indicate high levels of engagement. The highest domain mean was in *Manages School Mission* which suggests that principals are highly involved in working with staff to identify the school's goals focused on the academic progress of students. The lowest mean was in the domain of *Promoting a Positive School Climate*, which suggests that principals moderately engage in developing and attending to structures and processes that facilitate a culture of learning (Hallinger & Wang, 2015). The highest means of functions were in *Frames School Goals*, *Promotes Professional Development*, and *Supervises and Evaluates Instruction*, all with means above 4.0. Principals rated themselves highest in

defining clear school goals around which staff can focus their energy and practice, providing professional staff development in translating the school goals into classroom practice, and supporting instruction through formal and informal observations (Hallinger & Wang, 2015). The lowest function means were found in *Provides Incentives for Teachers*, *Provides Incentives for Learning*, and *Communicates School Goals*. The first two functions relate to a principal's commitment to motivating staff and students and creating a culture of teaching and learning success. The latter suggests that while school goals are clearly identified, they also need to be visible around the school, reviewed often with staff, students and families, and directed toward the academic and non-academic growth appropriate for the needs of the school populations (Hallinger & Wang, 2015).

Research Question 2

What are elementary special education teacher perceptions of principal instructional leadership practices for special education programs and services? No hypothesis was generated for Question 2.

Results Discussion. Descriptive statistics were used to analyze special education teacher responses using the PIMRS Teacher survey instrument. The survey measured teacher perceptions of principal instructional leadership behaviors. Means were generated for the three leadership domains, *Defines School Mission* (M = 3.85), *Manages the Instructional Curriculum* (M = 3.58), and *Promotes a Positive School Climate* (M = 3.46).

Means for instructional leadership functions were reported as *Frames School Goals* (M = 4.14) and *Communicates School Goals* (M = 3.67) under the domain of *Manages School Mission.* In the domain *Manages the Instructional Curriculum*, the function means were *Supervises and Evaluates Instruction* (M = 3.80), *Coordinates*

Curriculum (*M* = 3.60), and *Monitors Student Progress* (*M* = 3.56). Five functions fell under the domain *Promotes a Positive School Climate*, *Protects Instructional Time* (*M* = 3.81), *Maintains High Visibility* (*M* = 3.34), *Provides Incentives for Teachers* (*M* = 3.16), *Promotes Professional Development* (*M* = 3.86), and *Provides Incentives for Learning* (*M* = 3.45).

Responses from special education teachers showed more variability; however, all mean scores were above a 3.0. The leadership domains showing the highest and lowest means were *Manages School Mission* and *Promotes a Positive School Climate,* which was consistent with principal findings. The functions with the highest means were *Frames School Go*als, *Promotes Professional Development*, and *Protects Instructional Time*. The functions with the lowest means were *Provides Incentives for Teachers*, *Maintains High Visibility*, and *Provides Incentives for Learning*. There was more variability of special education teacher responses in functions comprising the domain of *Promotes a Positive School Climate*. *Promotes Professional Development* and *Protects Instructional Time* were ranked second and third highest of the ten leadership functions respectively, while *Provides Incentives for Teachers* and *Maintains High Visibility* were the lowest two ranked functions. In addition to the principal's role in identifying clear school goals and supporting staff development in their work to achieve those goals, teacher ratings suggest that principals actively maximize instructional time through schoolwide policies and scheduling that minimize disruptions. For example, procedures for tardy students and visitors and the use block scheduling result in the reduction of interruptions to instruction. Similar to principal report, special education teachers note less implementation of formal and informal motivation strategies to incentivize continuous improvement in teaching and learning. Compared to other principal

behaviors, teachers report less principal visibility on campus and in classrooms, which reduces the likelihood of interaction with students and teachers.

Research Question 3

Is there a significant difference between elementary principal and elementary special education teacher perceptions of principals' instructional leadership practices for special education programs and services?

Results Discussion. The purpose of this question was to detect existing differences in PIMRS scores between principals and special education teachers. Statistically significant differences were found between the two groups on their perceptions of principal instructional leadership across domains and more specific functions, resulting in the decision to reject the null hypothesis for Question 3. The magnitude of the difference in group perceptions was small for the general domains (η^2 = .04) and large (η^2 = .27) for the more discrete principal functions of leadership.

Separate ANOVAs revealed statistically significant differences in the domain areas of *Manages the Instructional Curriculum* and *Promotes a Positive School Climate*, although effect sizes for both were small (η^2s = .02). Special education teachers reported lower scores than principals in principal focus on the development, coordination and control of instruction and curriculum as it relates to special education, and also in incentivizing continuous improvement in teachers and students.

Analyses of variance using the 10 functions as dependent variables allowed the researcher to detect statistically significant differences in four specific principal functions based on group role, *Frames School Goals,* (η^2 = .04), *Supervises and Evaluates Instruction,* (η^2 = .06), *Maintains High Visibility,* (η^2 = .04), and *Promotes Professional Development,* (η^2 = .06). Compared to special education teachers, principals reported

higher levels of engagement in identifying specific school goals and focusing staff work towards goal achievement, supporting staff in continuous instructional improvement, maintaining high points of contact with teachers and students, and utilizing professional development opportunities to promote instructional improvement of staff (Hallinger & Wang, 2015).

Implications. Hallinger noted that differences in principal and teacher reports of leadership using the PIMRS are not uncommon, with a tendency for principal ratings to be higher than teacher ratings (Hallinger & Heck, 2011; Hallinger & Wang, 2015). He posited that analysis of differences would be helpful to identify patterns of leadership strengths and weaknesses, but the potential of influencing factors needed to be considered within the school context (school needs, comparison of leadership scores across district, changes in scores from previous years). Findings of significant differences in principal and teacher perceptions of principal leadership has support in research literature and has also been attributed to within-subject and within-school variables (Bass & Yammarino, 1991; Boyce & Bowers, 2018; Goff et al., 2014; Hallinger & Wang, 2015, Leithwood & Jantzi, 1997; Orphanos & Orr, 2014; Urick & Bowers, 2008). Such variables were noted as principal gender, years of experience in principal and teacher roles, years of experience working together, the needs of the school, and others. It should be noted that the role of teachers referred to in the body of instructional leadership research noted above was comprised of *all* teachers, not just special education teachers.

Overall, the findings of this study support existing research. Differences in magnitude were found in principal and special education teacher responses scores overall. Differences were not found across all domains and functions of leadership. No differences were found in the domain, *Manages School Vision,* and this was the highest

rated domain for both principals and special education teachers in domain and subscale function. This study generally supports the findings from Cook et al. (1999) and Wakeman et al. (2006), that principals engage in creating a vision of learning for special education students in their schools.

Differences were detected in *Managing the Curriculum*, which is the coordination and supervision of instruction and curriculum. A difference was found in perceptions of supervising and evaluating instruction, a PIMRS subscale, which is consistent with the more general findings in this domain. Hallinger referred to this work as "managing the technical core" of the school (Hallinger & Wang, 2015). Principals rated themselves more positively than did special education teachers in their ability to translate academic vision into classroom practice for special education. This researcher did not investigate reasons for differences in perceptions; however, previous research presented in Chapter Two of this study suggested that principals reported less specialized knowledge and less involvement in activities that might facilitate improved outcomes of students with disabilities incorporating evidence-based instruction for students with disabilities, and monitoring alignment of IEPs to state standards (Bays & Crockett, 2007; Frost & Kersten, 2011; McHatton et al., 2010; Wakeman et al., 2006).

Students with disabilities require more systematically designed instruction than typical peers (Archer & Hughes, 2011), which involves matching content knowledge and evidenced based instructional practice to the needs of the student (McLeskey et al., 2017). In two meta-analyses funded by the Institution for Educational Sciences, researchers suggested that instructional process programs had larger effects on learning for struggling students in reading and math than remedial curricula, and/or supplementing instruction with computer assisted technology. For example, programs that embedded

collaborative learning, peer tutoring, direct instruction, mastery learning, self-directed learning strategies, and motivational strategies were shown to have larger effects on student learning than implementation of a remedial textbook or computer program, although curriculum plus instructional process programs were shown to have additive effects (Inns et al., 2019; Slavin et al., 2010). This study did not examine instructional process program for special education; however, such programs may provide examples under the domain *Manages the School Curriculum* where principals could expand their knowledge and oversight of instruction for special education.

Differences were also found in the domain of *Promoting a Positive School Climate*. Hallinger described this as the ability to operationalize a culture of continuous improvement by "enabling teachers to do their job more efficiently and effectively" (Hallinger & Wang, 2015, p. 33). Others have described this area of leadership as creating structures that translate the vision of academic learning into functional policies, procedures and routines (Hallinger & Wang, 2015; Leithwood et al., 2004). Comparatively, teacher scores in this study were lower than principal scores when rating principal influence on learning systems specific for students with disabilities. This domain comprised of subscales or functions that were ranked among the highest and lowest of the ten functions by special education teachers. Teachers reported that principals protected their instructional time by minimizing disruptions to instruction and encouraged professional development, although the latter behavior was rated significantly lower by teachers than principals. Lower ranked behaviors were in maintaining visibility in the classroom, which was rated markedly lower by teachers than principals, and campus and providing motivation for teachers and students through acknowledgment of growth and success. The limited research literature in this area shows mixed findings, as

well, and may indicate that a clearer definition of "school climate" for special education is needed. Researchers (Bays & Crockett, 2007; Bellamy et al., 2014) found that principals had fewer interactions with special education teachers about program improvement compared to regular education, and given excessive workloads, they dispersed responsibility to other educators with more knowledge of special education (i.e., assistant principals, special education directors, special education teachers). Frost and Kersten (2011) similarly found that principals were more active in activities required for all teachers, such as formal observations and evaluations, and hiring practices, but were less active in the daily activities related specifically to special education (monitoring alignment of IEPs to state standards, planning program improvement). Interestingly, Frost and Kersten (2011) found the highest reported principal behavior by principals and teachers was in their understanding and involvement in their district's Response to Intervention Plan, a general education tiered intervention approach and a pre-requisite to special education eligibility. This finding led to this researcher's interest in whether RtI or MTSS affected perceptions of principal instructional leadership in the current study. These findings are reported next.

Research Question 4

Do perceptions of principal instructional leadership vary with the implementation of RtI or MTSS in their schools?

Results Discussion. The purpose of this question was to determine whether a relationship existed between group assignment (principal, special education teacher) and the implementation of a schoolwide tiered intervention system. Two 2 x 4 MANOVAs were utilized to examine a main effect of Implementation of RtI or MTSS at the domain and functions levels.

Results of the first factorial MANOVA did not show a statistically significant effect for implementation of RtI or MTSS, suggesting that the number of years that a school had implemented a tiered intervention system did not impact perceptions of principal leadership. The researcher retained the null hypothesis for the effect of RtI or MTSS across domains.

The second factorial MANOVA revealed a statistically significant effect for Implementation of RtI or MTSS on the functions of principal leadership, although the effect sizes were small. The leadership practices of *Communicating School Goals* were lower in schools that had no tiered intervention system compared to schools who were early (1-5 years) or well established (10+ years) in systematizing interventions. These findings seem to support the intent of RtI or MTSS systems in the articulation of well-defined academic and behavioral goals, as well as supports for struggling students to teachers, students, and families (Center for Response to Intervention, 2019). *Maintaining High Visibility* was reported higher in schools that were at any stage in their schoolwide intervention plan than in those with no tiered intervention system in place. The implementation of schoolwide intervention systems, although requiring the involvement of all staff, have shown to wane or die out without the involvement and oversight of the principal. Conversely, benefits of tiered intervention systems have been reported to include more consistent administrative support, shared academic language among all staff, embedded interventions with increased collaboration between classroom and special education teachers, and common assessments to monitor student progress (Lyon & Weiser, 2013). Schools implementing RtI or MTSS with fidelity have received feedback from parents that school is a welcoming and inviting place and teachers and

administrators are accessible (Bradshaw et al., 2008; Center for Response to Intervention, 2019; Heimbaugh, 2012)

Research Question 5.

Is there an interaction effect between group membership (principal and special education teacher) and the implementation of RtI or MTSS that affects perceptions of instructional leadership?

Results Discussion. Results from the two factorial MANOVAs utilized to answer Question 4 showed no statistically significant interaction effects between group role and the implementation of RtI or MTSS. The null hypothesis was retained for Question 5.

Summary of Results and Implications

A key tenet of instructional leadership is to improve classroom instruction and outcomes for all students (Blasé & Blasé, 1999; Darling-Hammond, 2000; DiPaola, & Walther-Thomas, 2003; Witziers et al., 2003). The principal plays a key role in creating conditions that foster continuous improvement in teacher instruction that will positively impact student learning (Bossert et al., 1982; DuFour & Mattos, 2013; Marzano et al., 2005). The areas in which effective principals impact improvement in teaching and learning are in identifying clear academic and behavioral goals, coordinating the curriculum to assure alignment of pedagogy with outcome goals, and creating structures that operationalize school improvement. The purpose of this study was to explore the areas in which principals engage in such leadership for special education. Precedential research shows that principals and teachers differ in their views of the level of principal engagement in instructional leadership area, and the current research study, with a narrowed lens on special education, shows similar differences, overall. No differences were found in principal engagement with creating a vision for student learning and

achievement, and both groups viewed principal engagement in this area as high. Differences were found in areas that require more specialized pedagogical knowledge and direct action. The researcher in this study did not ask why differences in perceptions exist, and many potential reasons could be explored. Existing research has established that principals do not receive adequate preparatory or ongoing training in special education and that they feel more confident in supporting the legal requirements of special education than in ensuring effective specially designed instruction for students with disabilities. These are areas that require attention and intentionality when developing principal preparation programs and district professional development plans.

Evidence-based intervention approaches are general education initiatives currently mandated by the *Every Student Succeeds Act* (2015), and are required in school improvement plans in the State of Washington (Office of the Superintendent of Public Instruction, 2020). Response to Intervention and Multi-Tiered Systems of Support are examples of such intervention approaches. There were indicators in this study that the implementation of tiered interventions systems influenced perceptions of principal leadership for special education. Although these findings need to be interpreted with caution due to small effect sizes, it is a promising area that requires more research.

Limitations

There were several limitations of this study including participation rate, survey methodology, lack of control for extraneous variables, and issues of measurement resulting from unequal sample sizes.

The participation rate was low at 7.3% (n = 112) for principals and 14.56% (n = 214) for special education teachers. Although these are considered adequate sample sizes in educational research (Ravid, 2011), they were lower than projected for each group.

Participants were not randomly selected. As such, responses are representative of those who agreed to participate in the study. Directory information was inaccessible in a few districts, and three large school districts required additional district research review procedures before granting permission to contact staff, which the researcher declined due to a tight timeline for survey completion. Perspectives were limited to the principal group, including principals and assistant principals and special education teachers. The addition of general education teachers and special education administrators may have resulted in other important perspectives not obtained in this study. Participation may have been hindered by the nature of the comparative study. Asking teachers to rate principal behaviors may have been uncomfortable for principals and/or teachers, and therefore, a deterrent to participation, although no paired comparisons were made by school.

Using a survey to gather perceptual data yielded subjective data which were not validated through other data sources, such as principal or teacher evaluations, therefore social desirability bias was not controlled (Vogt & Johnson, 2011). The participants were limited to items within the study and not given the opportunity to express opinions or include additional information.

Other extraneous variables were not controlled for, such as years of principal and teacher experience, type of school, and student enrollment numbers based on race/ethnicity, socioeconomic status, and disability.

Finally, unequal sample sizes led to a possible violation of homogeneity of variance. Although the researcher provided research-based justification for proceeding with statistical analysis of variance, results of the study should be interpreted with caution.

Recommendations

In this study the researcher examined the differences between principal and teacher perceptions of instructional leadership for special education. As federal and state school improvement accountability initiatives continue to be mandated, the importance of principal instructional leadership remains high. Principals are faced with complex leadership issues when the work of continuous improvement in teaching and learning is contextualized to special education. This study added to the research of instructional leadership behaviors specific to special education by comparing the perceptions of principals and special education teachers. Further research is imperative to expand the knowledge base of instructional leadership in order to improve learning outcomes for students with disabilities. Recommendations for future research follow:

1. Utilizing a mixed methods approach combining survey data with qualitative methods might provide deeper insights into instructional leadership profiles. For example, a follow-up study using the PIMRS principal and teacher survey with principal and teacher interviews and observations might yield underlying themes relevant to leadership for special education.
2. In an expansion of this study, research is needed to analyze standardized assessment data of student achievement for students with disabilities related to principal instructional leadership.
3. Further research studies could include general education teachers and special education administrators to obtain broader perspectives of instructional leadership for special education. This might be done by reducing the participants to one district or one school in order to make pairwise comparisons. This might yield a more complete profile of instructional leadership for special education for that school or district.

4. More current research is needed in comparing the quantity and quality of training in special education principal preparation program with in-service professional development in order to elucidate areas necessary for effective leadership of special education.
5. Further research is needed that examines the relationship between schoolwide tiered intervention systems, principal instructional leadership values and practices, instructional effectiveness of teachers and learning outcomes for students with disabilities.

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Appendix A

From: **Shea, Munyi** mshea@spu.edu
Subject: IRB Approval -- IRB # 192006006 (Expedited)
Date: January 26, 2020 at 12:32 AM
To: Norton, Jennifer nortonj@spu.edu
Cc: Bond, John bondj@spu.edu

MS

Dear Jennifer,

Your research project "**Elementary Principal and Special Education Teacher Perspectives of Instructional Leadership for Special Education**" has been approved under expedited IRB review.

. This study was approved under expedited review as it met the following criteria[7]

"_____(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

Your study has been assigned the IRB tracking number **192006006.**

As part of your IRB approval, you are required to use this number on any information regarding this study. To complete your documents **add your IRB # to any of your study's informed consent, debriefing and written recruitment material**.[8]

Please email me an unlabeled (no "appendix") version of your informed consent so that I can put the official IRB stamp on it. (And please insert the survey link.) Please contact me when you have completed collecting data for your study so that I can close your file.

If you plan to undertake changes in the protocol, you are required to submit a memo to me outlining the proposed changes. You may not change any protocol until you receive permission from the IRB.

As part of its review and oversight charter, members of the SPU IRB may request to inspect the data collection process and the confidential records from this research project.

If a subject experiences any adverse effects as part of this research protocol, you must contact the chair of the IRB at IRB@spu.edu immediately, detailing the adverse effect and the action that you took as the principal investigator. Failure to report an adverse effect within 24 hours may lead to the suspension this study.

By collecting data under this IRB application, you agree to be in compliance with Federal and SPU policies regarding the conduct of research with human subjects. Failure to comply with requirements associated with this study must be reported immediately to the Chair of the Institutional Review Board. Failure to comply with IRB policies may lead to adverse consequences as noted in the SPU IRB policies.

This is the only documentation that you will receive regarding your study's approval. Please print it out and add to your study's documentation.

Please use your study number in any further communication regarding this study.

Best Wishes in the Completion of your Research.

Dr. Munyi Shea, Ph.D.
Associate Professor, Director of Doctoral Programs
School of Education
SEATTLE PACIFIC UNIVERSITY | SPU.EDU
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Editorial Board Member, *Asian American Journal of Psychology*
Editorial Board Member, *The Counseling Psychologist*

Appendix B

Letter of Introduction to Principals

SEATTLE PACIFIC UNIVERSITY

School of Education

Dear Principal and Assistant Principal:

My name is Jennifer Norton, Director of Undergraduate Teacher Education and a doctoral candidate in the School of Education at Seattle Pacific University. My dissertation study involves researching the construct of principal instructional leadership for special education. The purpose of the study is to investigate dimensions of principal instructional leadership, from the perspectives of principals, assistant principals and special education teachers, that pertain to special education programs and students with disabilities. Invited participants include 1,350 Washington State Elementary Principals and Assistant Principals, and 2,000 special education teachers. A 25% response rate is expected.

As a Principal or Assistant Principal in a Washington State K-12 Elementary School, your participation will be valuable in discerning instructional leadership characteristics and practices used by principals that are specific to students with disabilities. This will help inform providers of principal and teacher education preparation programs. In a few days you will receive an email request to complete an online survey comprised of demographic information and 50 statements related to dimensions of instructional leadership. Responses fall on a 5-point Likert-type scale from Almost Never to Almost Always. The survey is estimated to take 15-20 minutes. Your responses will be kept confidential and you may skip any questions or withdraw from the study at any time. The study will take place within a two-week window between February 12th and 25th, 2020 during which time you will receive the email survey request and two email reminders for participation.

The proposed study involves no known risk. To participate in this study, you must be at least 18 years old.

If you are interested in learning more about the study, please call or email me. Your inquiries will not be associated with the study data.

Regards,

Jennifer Norton
Director of Undergraduate Teacher Education
3303 Third Avenue West
Seattle, Washington 98119
(206) 378-5099
nortonj@spu.edu
IRB #: 192006006

Letter of Introduction to Special Education Teachers

SEATTLE PACIFIC UNIVERSITY

School of Education

Dear Special Education Teacher:

My name is Jennifer Norton, Director of Undergraduate Teacher Education and a doctoral candidate in the School of Education at Seattle Pacific University. My dissertation study involves researching the construct of principal instructional leadership for special education. The purpose of the study is to investigate dimensions of principal instructional leadership, from the perspectives of principals, assistant principals and special education teachers, that pertain to special education programs and students with disabilities. Invited participants include 1,350 Washington State Elementary Principals and Assistant Principals, and 2,000 special education teachers. A 25% response rate is expected.

As a Special Education Teacher in a Washington State K-12 Elementary School, your participation will be valuable in discerning instructional leadership characteristics and practices used by principals that are specific to students with disabilities. This will help inform providers of principal and teacher education preparation programs**. In two days you will receive an email request to complete an online survey** comprised of demographic information and 50 statements related to dimensions of instructional leadership for special education. Responses fall on a 5-point Likert-type scale from Almost Never to Almost Always. The survey is estimated to take 15-20 minutes. Your responses will be kept confidential and you may skip any questions or withdraw from the study at any time. The study will take place within a two-week window between February 12th and 25th, 2020 during which time you will receive the email survey request and two email reminders for participation.

The proposed study involves no known risk. To participate in this study, you must be at least 18 years old.

If you are interested in learning more about the study, please call or email me. Your inquiries will not be associated with the study data.

Regards,

Jennifer Norton
Director of Undergraduate Teacher Education
3303 Third Avenue West
Seattle, Washington 98119
(206) 378-5099
nortonj@spu.edu
IRB #: 192006006

Letter of Informed Consent for Principals

School of Education

Principal Letter of Informed Consent

Title of Study: Elementary Principal and Special Education Teacher Perspectives of Instructional Leadership for Special Education

Survey Link: **https://www.research.net/r/PIMRSP**

Principal Investigator:

Jennifer Norton, M.Ed.
Director of Undergraduate Teacher Education
Doctoral Candidate
Seattle Pacific University
nortonj@spu.edu
(206) 378-5099
IRB #: 192006006

SPU Faculty Sponsor:

John Bond, Ed. D.
Chair of Educational Leadership Program
Seattle Pacific University bondj@spu.edu
(206) 281-2114

Purpose

My name is Jennifer Norton, the Director of Undergraduate Teacher Education and a doctoral candidate in the School of Education at Seattle Pacific University. As a Principal or Assistant Principal, you are invited to participate in a research study of the construct of principal instructional leadership as it pertains to special education. The purpose of the study is to investigate dimensions of principal instructional leadership, from the perspectives of principals, assistant principals and special education teachers, that pertain to special education programs and students with disabilities. This will help inform developers and providers of principal and teacher education preparation programs. Invited participants include 1,350 Washington State Elementary Principals and Assistant Principals, and 1,700 special education teachers. A 25% response rate is expected. You must be 18 years of age or older to participate.

Procedures

Participation includes completing an estimated 15 to 20-minute online survey, which comprises demographic questions and the Principal Instructional Management Rating Scale. The PIMRS is a 50-item self-assessment of your instructional leadership behaviors and practices as they pertain to

special education, requiring Likert-type responses (Almost Never to Almost Always). The survey participation window will be open from February 12th to February 25th, 2020.

Confidentiality

The information in the study records will be kept confidential. Data will be stored securely and will be made available only to persons conducting the study and to the author of the PIMRS, unless you specifically give permission in writing to do otherwise. No reference will be made in oral or written reports that could link you to the study. Your de-identified data may be used in future research, presentations or for teaching purposes by the Principal Investigator listed above.

Benefits and Risks

We do not anticipate direct benefits to participants, but your participation has the potential to benefit the body of educational research in the area of principal leadership for special education. Participation in the study is considered minimal risk; however, if you experience discomfort with a question, you may skip it. You may also pause the survey at any time and return to it at a later time.

Participation and Alternatives to Participation

Your participation is entirely voluntary and may be withdrawn at any time during the study. Please proceed to the survey site through the following link where you will be asked to provide consent for participation. The survey questions follow the consent.

https://www.research.net/r/PIMRSP

Subject Rights

If you have any questions about your participation in this study, please contact me by mail, 3303 Third Avenue West, Seattle, Washington, 98119, by email at nortonj@spu.edu, or by phone at (206) 378-5099. Questions about your rights as a research human subject may also be directed to the Seattle Pacific University Institutional Review Board Chair at (206) 281-2201 or IRB@SPU.edu. Response to this email does not obligate you to participate in this study.

Thank you,
Jennifer Norton, M. Ed.

Letter of Informed Consent for Special Education Teachers

School of Education

Special Education Teacher Letter of Informed Consent

Title of Study: Elementary Principal and Special Education Teacher Perspectives of Instructional Leadership for Special Education

Survey Link: https://www.research.net/r/PIMRSSPEDT

Principal Investigator:

Jennifer Norton, M.Ed.
Director of Undergraduate Teacher Education
Doctoral Candidate
Seattle Pacific University
nortonj@spu.edu
(206) 378-5099
IRB #: 192006006

SPU Faculty Sponsor:

John Bond, Ed. D.
Chair of Educational Leadership Program Seattle Pacific University bondj@spu.edu
(206) 281-2114

Purpose

My name is Jennifer Norton, the Director of Undergraduate Teacher Education and a doctoral candidate in the School of Education at Seattle Pacific University. As a Special Education Teacher, you are invited to participate in a research study of the construct of principal instructional leadership as it pertains to special education. The purpose of the study is to investigate dimensions of principal instructional leadership, from the perspectives of principals, assistant principals and special education teachers, that pertain to special education programs and students with disabilities. This will help inform developers and providers of principal and teacher education preparation programs. Invited participants include 1,350 Washington State Elementary Principals and Assistant Principals, and 1,700 special education teachers. A 25% response rate is expected. You must be 18 years of age or older to participate.

Procedures

Participation includes completing an estimated 15 to 20-minute online survey, which comprises demographic questions and the Principal Instructional Management Rating Scale. The PIMRS is a 50-item assessment requiring Likert-type responses (Almost Never to Almost Always) of your principal's instructional leadership behaviors and practices as they pertain to special education. The survey participation window will be open from February 12th to February 25th, 2020.

Confidentiality

The information in the study records will be kept confidential. Data will be stored securely and will be made available only to persons conducting the study and to the author of the PIMRS, unless you specifically give permission in writing to do otherwise. No reference will be made in oral or written reports that could link you to the study. Your de-identified data may be used in future research, presentations or for teaching purposes by the Principal Investigator listed above.

Benefits and Risks

We do not anticipate direct benefits to participants, but your participation has the potential to benefit the body of educational research in the area of principal leadership for special education. Participation in the study is considered minimal risk; however, if you experience discomfort with a question, you may skip it. You may also pause the survey at any time and return to it at a later time.

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https://www.research.net/r/PIMRSSPEDT

Subject Rights

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Thank you,

Jennifer Norton, M. Ed.

First Survey Reminder Email for Principals

Dear Principal and Assistant Principal:

Recently you were sent a request to participate in an important survey about instructional leadership for special education. If you have not completed the survey already, please consider adding your feedback as a principal or assistant principal in your school. The survey link is: **https://www.research.net/r/PIMRSP** and will be open through February 25th.

Your participation in this research is strictly voluntary. For more information about the study, please see the Principal Letter of Informed Consent (attached), and I would be happy to answer any questions you might have about the study. My contact information is below.

Thank you for your consideration.

Jennifer Norton
Director of Undergraduate Teacher Education
(206) 378-5099
nortonj@spu.edu

SEATTLE PACIFIC UNIVERSITY | SPU.EDU

First Survey Reminder Email for Special Education Teachers

Dear Special Education Teacher:

Recently you were sent a request to participate in an important survey about instructional leadership for special education. If you have not completed the survey already, please consider adding your feedback as a special education teacher in your school. The survey link is: **https://www.research.net/r/PIMRSSPEDT** and will be available through February 25th.

Your participation in this research is strictly voluntary. For more information about the study, please see the Special Education Letter of Informed Consent (attached), and I would be happy to answer any questions you might have about the study. My contact information is below.

Thank you for your consideration.

Jennifer Norton
Director of Undergraduate Teacher Education
(206) 378-5099
nortonj@spu.edu

SEATTLE PACIFIC UNIVERSITY | SPU.EDU

Final Survey Reminder Email for Principals

Dear Principals and Assistant Principals:

This is a final request for your participation in the survey on principal instructional leadership for special education. Your feedback on the potential distinctions of principal leadership for special education is an important area of consideration in principal and teacher preparation programs. The survey will be open through Tuesday, February 25, 2020. The survey link can be found here: **https://www.research.net/r/PIMRSP.**

My sincere thanks for your participation in this study.

Jennifer Norton
Director of Undergraduate Teacher Education
(206) 378-5099
nortonj@spu.edu

SEATTLE PACIFIC UNIVERSITY | SPU.EDU

Final Survey Reminder Email for Special Education Teachers

Dear Special Education Teacher:

This is a final request for your participation in the survey on principal instructional leadership for special education. Your perspective on the potential distinctions of principal leadership for special education is an important area of consideration in principal and teacher preparation programs. The survey will be open through Tuesday, February 25, 2020. The survey link can be found here: **https://www.research.net/r/PIMRSSPEDT.**

My sincere thanks for your participation in this study.

Jennifer Norton
Director of Undergraduate Teacher Education
(206) 378-5099
nortonj@spu.edu

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Appendix C

Permission to Use PIMRS Survey Instrument

Dear Jennifer

You have my permission to use the PIMRS in your research. You now are able to access various PIMRS resources on my website athttp://philiphallinger.com/tool/survey/pimrs/a/researcherLogin-2.html.

Please enter the following requested information during 2019:

- Research User ID: **PIMRS**
- Your Password: **9663951**
- Name: Your **FirstName LastName**
- Email: Your **email address**
- Click the *Submit button*

The webpage contains a variety of resources including:

1. Forms of the English language PIMRS for your copying and adaptation
2. Translated versions of the PIMRS for Malay, Chinese, Arabic, Thai, Persian, Amharic, Portuguese, Spanish, Turkish, Vietnamese
3. Support resources including the Technical Report (new), User Manual (old)
4. PIMRS related articles and book chapters
5. Other instructional leadership articles
6. List and zipped PDF files of 400 PIMRS Studies

For full and up-to-date information on the PIMRS and its use as a research and evaluation tool, please my latest book, Assessing Principal Instructional Leadership with the PIMRS. The book contains useful information for researchers on the scale including its development, use, validity and reliability. The book also details how to use the short form and plan research with the instrument. For more info, go to: http://www.springer.com/cn/book/9783319155326. Individual chapters may also be purchased.

Please keep in mind the conditions of your purchase including sending me: 1) a copy of the translated PIMRS (if applicable), 2) a copy of your RAW DATASET, and 3) a pdf copy of your completed study.

Please also note that the user is required to include ALL questions including demographic questions (i.e., gender, years of experience, school level) included in the PIMRS unless otherwise waived by the publisher.

If you need any assistance, please contact me directly.

Best of luck.

Prof. Hallinger

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Dr. Philip Hallinger
TSDF Chair Professor of Leadership
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Distinguished Visiting Professor
University of Johannesburg, South Africa
www.philiphallinger.com
www.researchgate.net/profile/Philip_Hallinger/contributions

"Teachers live on and on through the lives of their students.
Good teaching is forever and the teacher is immortal."
Jesse Stuart, 1937, *The Thread That Runs So True*

Appendix D

Frequency Distributions of PIMRS Domains

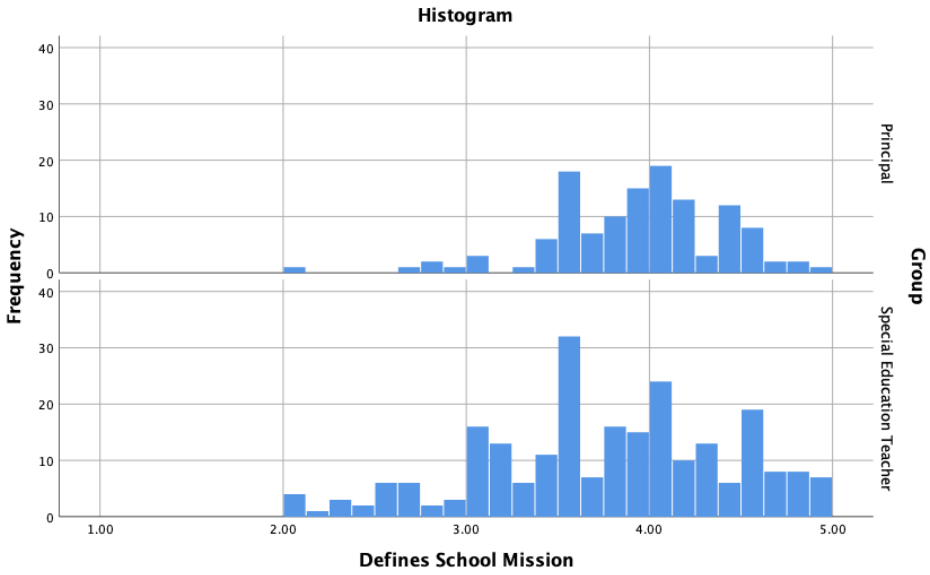

Figure 1. Distribution of PIMRS principal and PIMRS special education teacher scores for *Defines School Mission* domain.

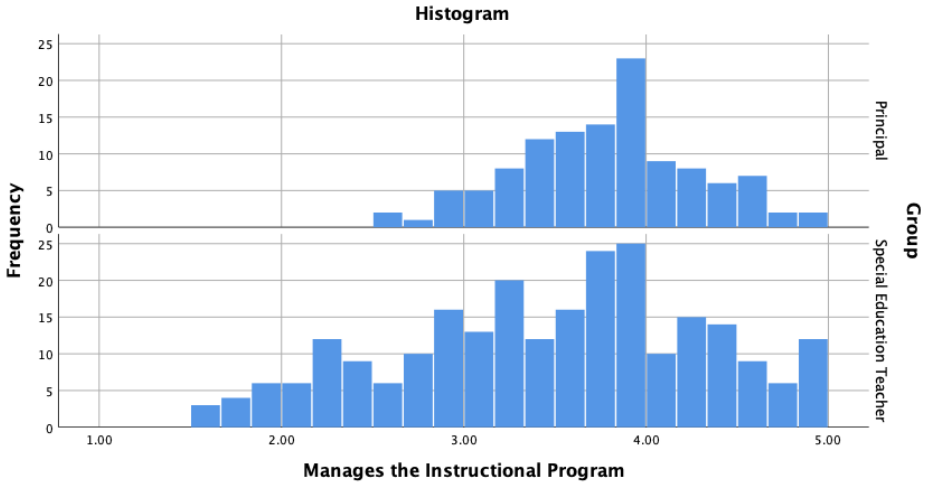

Figure 2. Distribution of PIMRS principal and PIMRS special education teacher scores for *Manages the Instructional Program*.

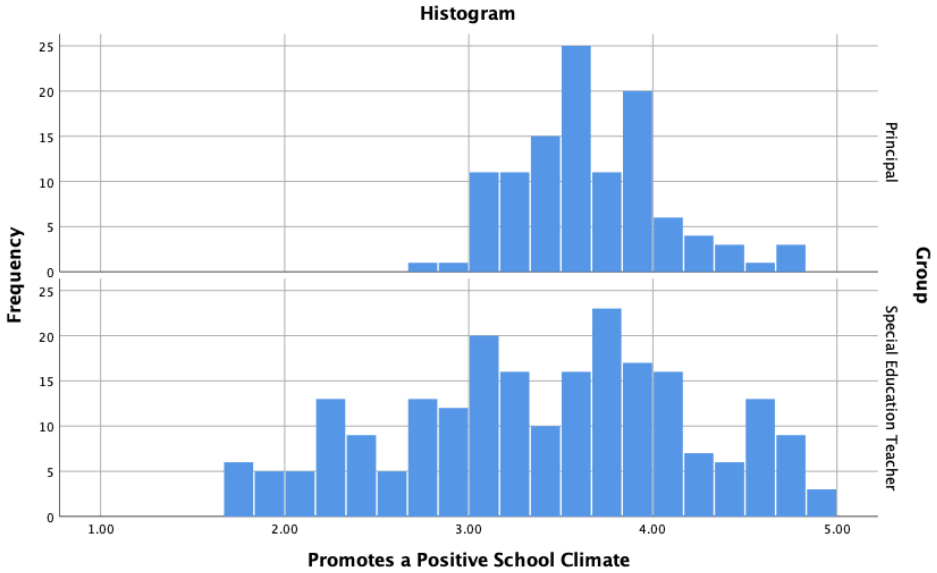

Figure 3. Distribution of PIMRS principal and PIMRS special education teacher scores for *Manages the Instructional Program*.

Appendix E

Frequency Distributions of PIMRS Functions

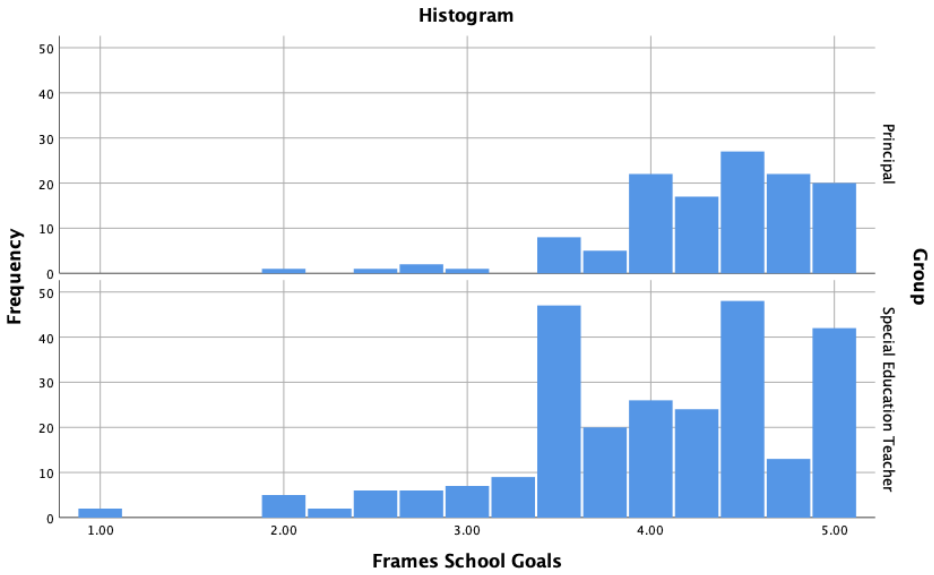

Figure 4. Distribution of PIMRS principal and PIMRS special education teacher scores for *Frames School Goals* function.

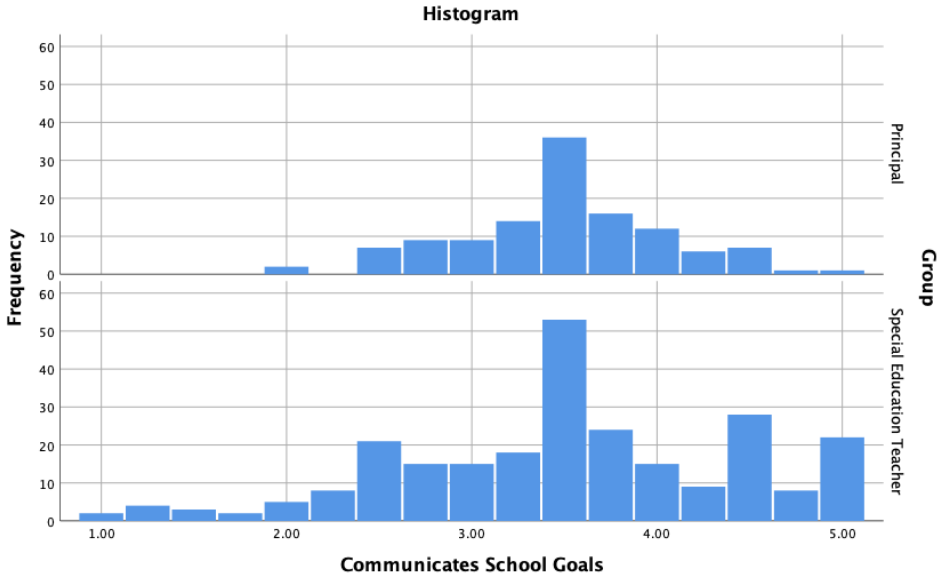

Figure 5. Distribution of PIMRS principal and PIMRS special education teacher scores for *Communicates School Goals* function.

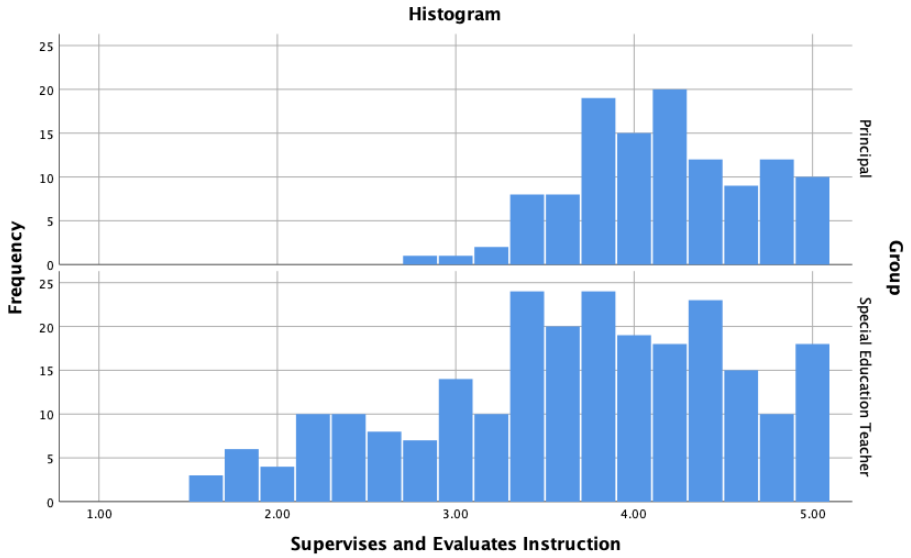

Figure 6. Distribution of PIMRS principal and PIMRS special education teacher scores for *Supervises and Evaluates Instruction* function.

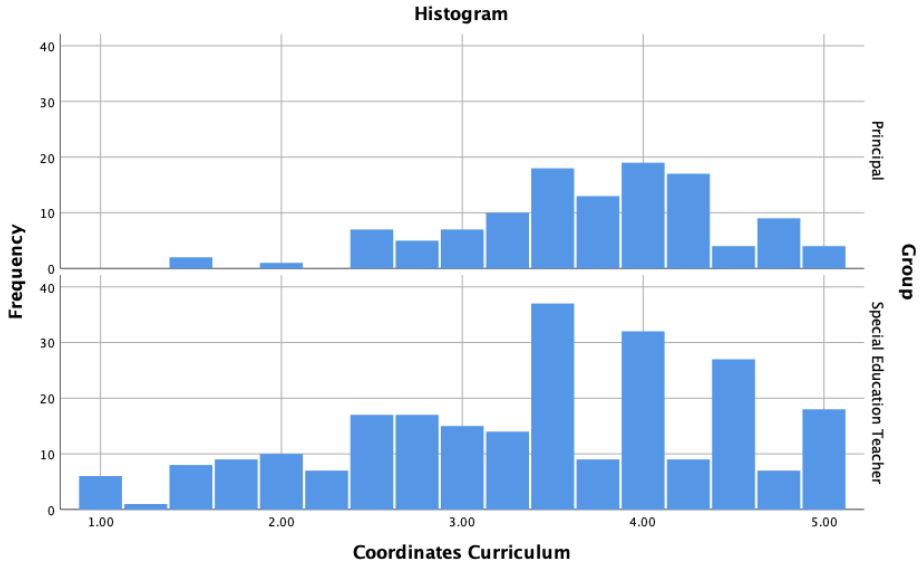

Figure 7. Distribution of PIMRS principal and PIMRS special education teacher scores for *Coordinates Curriculum* function.

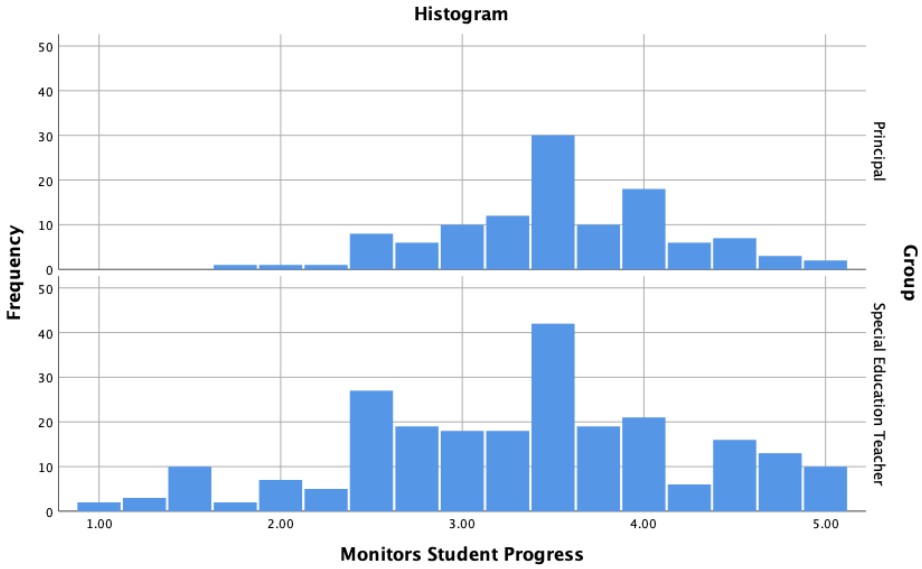

Figure 8. Distribution of PIMRS principal and PIMRS special education teacher scores for *Monitors Student Progress* function.

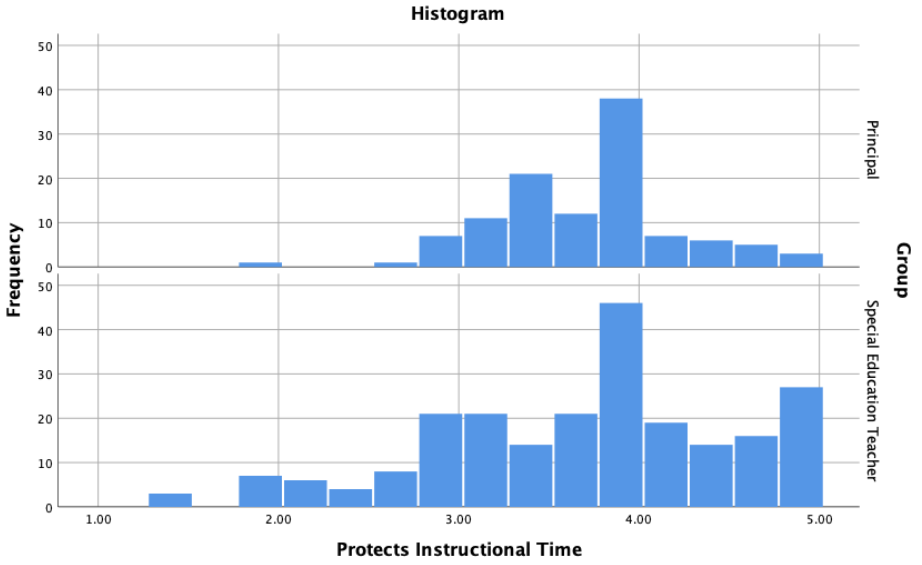

Figure 9. Distribution of PIMRS principal and PIMRS special education teacher scores for *Protects Instructional Time* function.

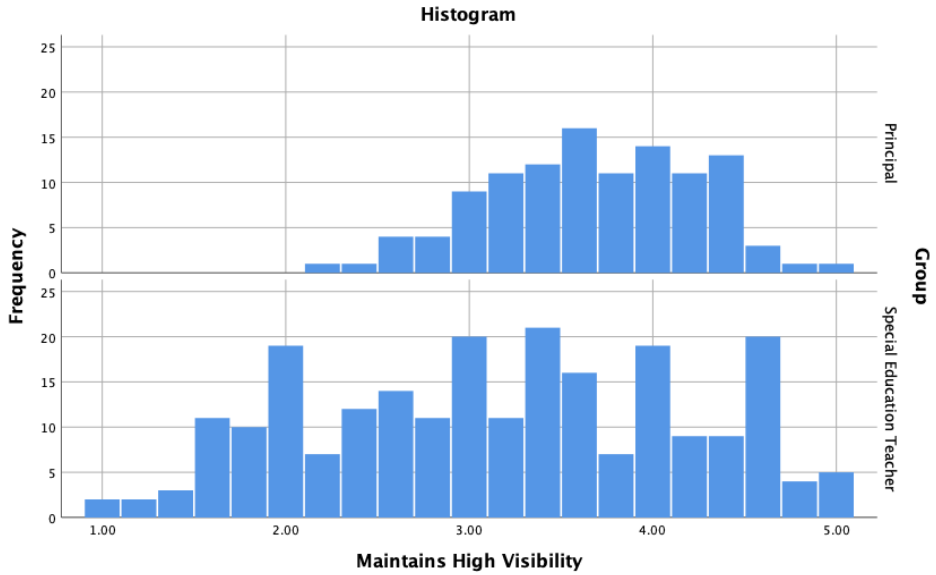

Figure 10. Distribution of PIMRS principal and PIMRS special education teacher scores for *Maintains High Visibility* function.

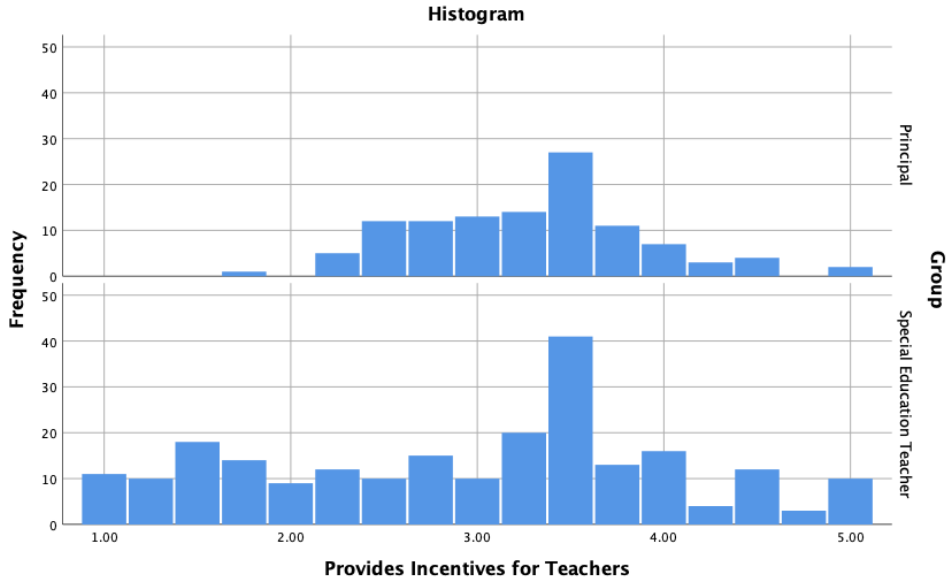

Figure 11. Distribution of PIMRS principal and PIMRS special education teacher scores for *Provides Incentives for Teachers* function.

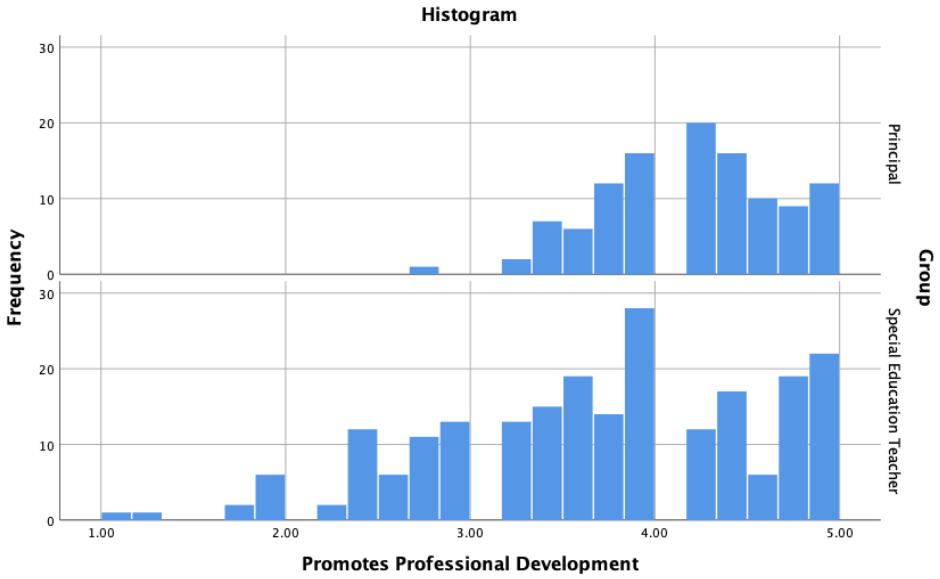

Figure 12. Distribution of PIMRS principal and PIMRS special education teacher scores for *Promotes Professional Development* function.

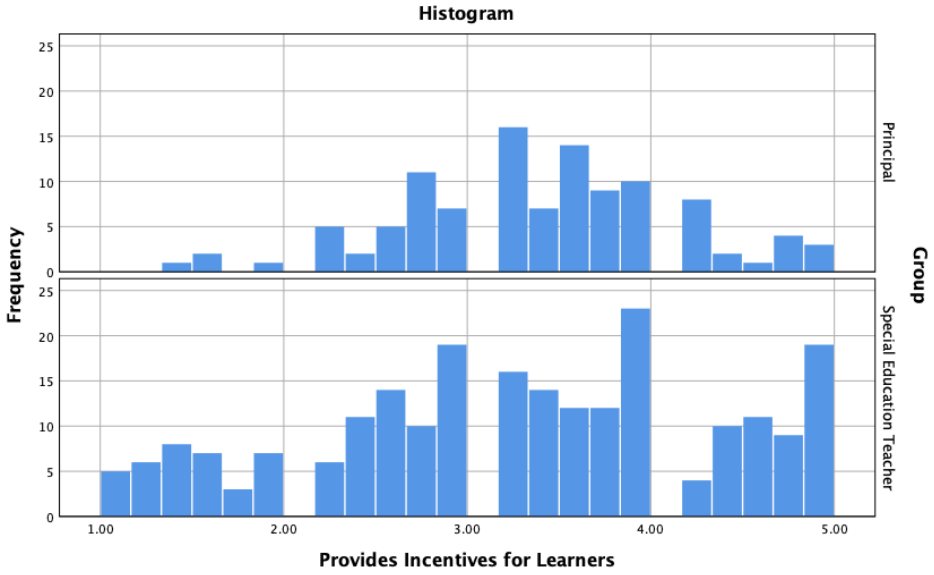

Figure 13. Distribution of PIMRS principal and PIMRS special education teacher scores for *Provides Incentives for Learning* function.